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Electronic Entertainment

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COVER PHOTOGRAPH BY PAUL MORELL; FOOTBALL PLAYERS BY DAVID MADISON (LEFT) AND TIM DAVIS/DAVID MADISON (RIGHT)

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Editor's Page

Gina Smith

Girlie Games

Should there be games for girls? Or multimedia for women? I don't think so.

But I seem to be in the minority. These days, I can't give a speech or show up for a panel discussion without some angry audience member decrying the "sexism" of the software industry. The growing feeling is that the multimedia business—and especially the game business—caters only to boys and men. Or worse, that women will suffer in the business world because they never got acquainted with Game Boys, Sega CDs, PCs, whatever.

I say, baloney. If there should be computer games for girls, then do we also need games designed for other so-called special-interest groups, like environmentalists and the elderly? The idea of segmentation—of separate but equal markets—is nothing but a thinly veiled disguise for poorly crafted products.

Sure, violent shoot-'em-up and exploitative games targeted at adolescent boys and men are very popular. The same is true in TV shows and movies. But last time I checked, the top-selling PC titles were Myst and SimCity 2000. And on the Mac, best-sellers include The 7th Guest, Chessmaster 3000, and SimCity Classic. These games don't cater to a particular gender—they simply offer great graphics, strategy, or puzzles. They're just plain good, no matter who's driving the mouse. I believe the success of these "gender neutral" games will make the market even bigger.

That's why we've been arguing like crazy in this office over whether to run a story about women and computer games. After a lot of discussion, we decided that *Electronic Entertainment*'s mostly male readership wanted to know why their wives and girlfriends don't have the same hankering for games that they do. The result is Jane Greenstein's feature "Why Women Don't Play Computer Games," page 56. Greenstein's conclusions? Basically, women aren't as gadget crazy as guys; they generally prefer socializing to sitting in front of a PC all night long; they're less interested in blood and gore; and their competitive instincts don't find an outlet in besting a machine.

Admittedly, women buy only a tiny percentage of computer games, but so what? Even if girls don't play electronic games as kids, they can get exposure to computers in school and, later, in their work. I was never a Space Invaders fanatic, and I made computers my career.

But as far as getting along better with the other half goes, maybe there's a small point here. Rusel DeMaria, in his column "Battle of the Sexes," on page 34 says that for many gamers, the perfect woman is one who loves computer games as much as they do. And I think if they're patient, they just might find one.

But if software makers seek a larger market they should concentrate on gender neutral games to attract the vast millions who don't fit into today's hard-core group of gamers, both men and women.

I don't have all the answers, but one thing is certain: Companies out to entice a mass market of women with "girlie" Barbie titles and the like are in for a miserable awakening. No one likes to be patronized. Even if they didn't grow up with a joystick in their hand.

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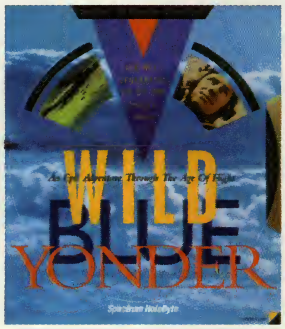

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Mail

SimCity Mystery

Most computer entertainment magazines don't interest me, but *Electronic Entertainment* is different. I immediately found several game reviews and features that interested me—I really enjoyed your feature on SimCity 2000, for example ("A Tale of Three Cities," March 1994, page 67).

However, in the April issue's Sharp Edge section there was a picture of SimCity 2000 (on page 20) with a caption about aggressive space aliens. It caught my attention, but there was no other reference to it in the magazine. What was it?

Nathan Lowe
Burleson, Texas

The picture you saw was in our Leader Board listing of the top-selling PC, Mac, and CD-ROM games and multimedia titles. It appeared because SimCity 2000 was that month's top-selling Macintosh game. Sorry for the confusion. —*Ed*

CD-ROM Request

I recently bought some computer magazines at a local mall, and I saw that some of them also had a CD-ROM version of their magazine. I thought this was an interesting way of getting me to buy the magazine, and it worked. Maybe you guys should do this, too. I'm sure it would make you more popular with consumers.

Chris Hawley
Taylors, South Carolina

You can be sure we're investigating alternative ways of getting information to our readers, including CD-ROM and online services. Be on the lookout for more information in future issues. —*Ed*

Shared Memories

I would like to respond to Rusel DeMaria on his and other DOS gamers' frustrations with installing DOS games ("Thanks For the Memories," June 1994, page 36). I am a longtime game programmer and player, and I agree with Rusel that a more consistent approach to installation is necessary.

Today's games "recommend" staggering system requirements. To keep up with game developers, I bought a 486/50 with 4MB of RAM, which can run most of my 50-plus DOS games. Installing them is a memory nightmare, and I work with computers for a living. I really feel sorry for the gameaholic who isn't a whiz with computers but still wants to have fun playing games.

One solution Rusel did not mention is upgrading to a superior operating system, such as IBM OS/2 2.1. Almost all DOS low-memory problems go away with OS/2. OS/2 memory settings, which can be customized for each game, let you literally build a CONFIG.SYS with expanded or extended memory on the fly. When a game locks up while you're running other applications, OS/2 comes to the rescue and protects your game. Because it's a true preemptive, 32-bit multitasking operating system, you can get a hole in one or shoot some bad guys while you're downloading mail or recalculating a spreadsheet. I also have some very serious flight simulators that run reasonably well at full detail and equal to regular DOS at slightly lower detail.

OS/2 is not for everyone, but a lot of users could benefit from using an operating system that isn't generations behind their hardware.

Bob Mahan
Arlington Heights, Illinois

VR Convert

The main reason I am writing is to praise you on the Virtual Reality article in your premiere issue ("Sweaty Palms," January 1994, page 42). This was a tremendous article that helped me with my toughest VR questions. After I read it I went downtown and played BattleTech. I love it! Thanks for introducing VR to me.

John Susek
Melrose Park, Illinois

Network News

I've been listening to all the hype about interactive networks and came across a company called Virtual Universe located in Canada. The company has a product which is getting a lot of attention: The Parallel Universe. What's your opinion on interactive networks?

Ed Courtney
Bethpage, New York

Interactive television is a lot like teenage sex—everyone talks about it, but very few are actually doing it. While interactive TV offers a lot of potential, progress toward creating such a setup has been extremely slow and limited to a few test markets. A portent of the future, however, is provided by Interactive Network of Sunnyvale, California. The company offers a black box that lets you play along with your TV by guessing the next play in a ballgame or beating the contestants to the punch on "Jeopardy." But it's limited to only a few areas, including San Francisco and Chicago. —*Ed*

New Knight

I'm a novice when it comes to computers, and I've really enjoyed your magazine. I especially liked your article in the May issue called "The Gross, the Rude, and the Ugly," (page 58).

I have Wolfenstein 3-D, Doom shareware, and Alone In The Dark, and I don't even have a computer yet. I have one question, though: Will Gabriel Knight have any sequels? I played it on my friend's IBM, and it looked really cool.

Keep up the good work!

Candy Lewis
Princeton, New Jersey

Yes, Candy, Sierra assures us that there will be a sequel to Gabriel Knight. "The Beast Within" CD-ROM is due to hit shelves next spring. Sierra says to expect an even stronger storyline in this next installment.

Got something you want to get off your chest? Do it! Write, fax, or e-mail us at: Letters to the Editor, c/o Electronic Entertainment, *951 Mariner's Island Blvd., Suite 700, San Mateo, CA 94404; fax: 415-349-7781; MCI ID: 619-7340; and CompuServe: 73361, 265.*

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SHARP EDGE

Get the scoop with SNL News anchor Dennis Miller.

SNL has spawned a lot of household names for decades.

Well, Isn't That Special?

It was funny on TV, and it's still funny on CD-ROM. Broadway Video and GameTek are teaming up to bring you the **"Saturday Night Live" 20th Anniversary,** a two-disc collection of inspired spoofs and digital memorabilia from the renegade comic bazaar.

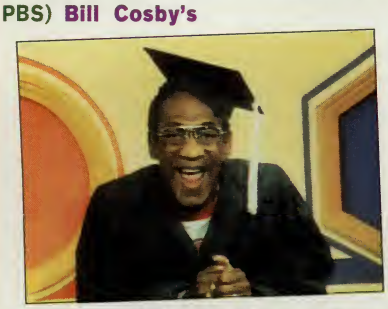
All the classics are here: John Belushi's Samurai slicing a sub with a five-foot blade, the Coneheads consuming "mass quantities" of beer, the Blues Brothers ripping through "Soul Man," and Wayne and Garth on schwing patrol. Due this fall, the title's interface is a digital reproduction of the SNL studio set—you click on hot spots to navigate through the program.

Behind the scenes, you'll find video footage and sound clips from the show, as well as a scrapbook of rare photos and SNL script passages. (GameTek; 800-927-4263; CD for DOS/Mac, $79.95) *—Bill Meyer*

Hey, Hey, Hey

You thought Bill Cosby has been everything imaginable: comedian, tennis pro/spy, M.D. superdad, parental guru, Jell-O pitch man. Now, he's starring on a kids' CD-ROM, too.

Take 2 Interactive is turning the popular TV program (seen on CBS, Nickelodeon, and PBS) **Bill Cosby's**

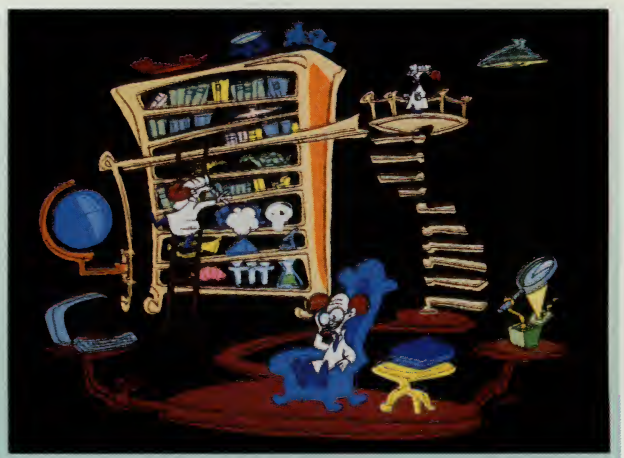


Picture Pages into an interactive children's title. The first of three volumes includes 25 animated and interactive picture pages inspired by the show and its workbooks. The digitized speech of Cosby and insect sidekick Mortimer Ichabod guide youngsters through the program with constant direction and encouragement. Each page has varied and surprising animations of Cosby, Mortimer, and other characters, plus lots of activities that teach logic and how to recognize shapes and numbers.

Also included are a set of digital coloring book pages and markers. Once kids finish a scene, the objects and characters–Cosby scuba diving, for instance–come to life. (Take 2 Interactive; 212-941-2983; CD for Windows/Mac, $49.95) *–Bill Meyer*

Weird Science

If you're scared stiff of science, then maybe what you need is a nutty professor with an attitude. **The Universe According to Virgil Reality** stars a wacky animated science professor who literally turns himself inside out trying to make science fun. Virgil uses the voice characterizations of Charles Fleischer, who chattered through the title role in *Who Framed Roger Rabbit?* Expect him this fall. (7th Level; 214-437-4858; CD for Windows, street price approximately $49.95) *–James Daly*



Virgil Reality is more fun than a barrel of Ceropithecus talapoins.

Music Over the Wire

The recordings and bios of little-known bands are available from Albany to Albania.

Located in a narrow room off a sunburnt strip of downtown Santa Cruz, California, a small electronic bulletin board is promising a fundamental shift in the way we experience new music.

Fueled by a mixture of verve and junk food, computer science undergrads Rob Lord and Jeff Patterson have created the **Internet Underground Music Archive** (IUMA), which shoots the recordings of little-known bands onto the vast electronic web of the Internet. Within seconds after they post the tunes, netsurfers from around the world can download songs such as "Toast" by Plasma Boy, Scott Brookman's "When I Die You Can't Have My Organs," and more than 75 others.

To reach IUMA you need access to the Internet and a sound-capable PC or Mac. If you want to listen to a tune, transfer the song to an audio tape by linking a stereo to your PC's sound card. Users also receive a band bio, a photo, and information about ordering the music.

Lord and Patterson say it's only a matter of time before music fans will be able to download full albums over fiber-optic lines to home audio systems. For now, their low-budget approach has its downside. A three-minute song can take a half-hour to 45 minutes to download, and the audio quality of the music doesn't match the crispness of a CD. Still, it's not bad—about the same as FM radio.

All posted songs have been donated by the musicians in exchange for the exposure, but compensation questions could arise. Michael Stone, an attorney providing free legal service to IUMA, has suggested a credit card-based pay-per-download system. "But then we start becoming a real business," says Patterson, who will graduate from the University of Califonia, Santa Cruz with Lord next spring. "And then it starts to get ugly." Reach IUMA via the World Wide Web at http://www.iuma.com. (Internet Underground Music Archive; 408-426-4862) *—James Daly*

Watch for Low-flying Mice

Look! Up in the sky! It's a bird! It's a plane! It's a...mouse?

You can forget cords and mouse pads with Creative Labs' new **AeroMouse.** This 3-D pointing device lets you control objects onscreen simply by pushing, pulling, and even lifting the mouse off the surface of your desk. Although it works in three dimensions with compatible games and titles—you can point left, right, toward you, and away—the AeroMouse also acts as a standard Microsoft-compatible mouse. Look for it in September. And if that doesn't grab you, try the AeroPen, a 3-D input device that provides finer control for drawing and digitizing. (Creative Labs; 800-998-5227; PC, $199 for both devices) *—Christopher Lindquist*

Share Centerstage with Aerosmith

You've seen their virtual-reality rock video on MTV, and now the boys in Aerosmith are inviting you to jam with the band. Whether you wanna be a rock 'n' roll star or just pound out power chords in your bedroom, Quest for Fame: Featuring Aerosmith could be your ticket to personal glory. One of the first games to work with the Virtual Guitar from Ahead, this upcoming title lets you progress from low-life groupie to heavy-metal glam rocker.

The Virtual Guitar is a guitar-like instrument that connects to your PC's serial port (see the March 1994 issue, page 11), but you don't necessarily have to be a guitar wizard to play along. The early levels let you get by with just strumming along in rhythm. Put on some quality shows, and you progress to the recording studio. Cut some hot tracks, and you can hit center stage with Steve Tyler, Joe Perry, and the rest of the bad boys from Boston. But you won't be jamming with the best in this game's advanced levels unless you can hit the right strings and play the right melodies for each scene's song. (Ahead; 800-872-7827; CD for Windows; Quest for Fame, $79.95; Virtual Guitar bundle, $109.95) ***–Bill Meyer***

SHARP EDGE

NEWSFLASH

- NBC's popular daytime soap opera **"Days of Our Lives"** is going interactive. Viewers who subscribe to a new service that will debut this fall will be able to register opinions about burning issues facing the program's characters, access information about past programs, review character profiles and plot twists, and scan material on fan clubs.

  The venture's partners, Interactive Network and Sony Pictures' Columbia TriStar Television, said subscribers will access information via a handheld, wireless, and portable control unit during real-time simulcasts.

- For a quick Internet on-ramp check out **The Internet Membership Kit,** which includes free set-up and a graphical user interface that smoothes out the 'Net's convoluted Unix commands, as well as the Internet Tour Guide, Internet Yellow Pages, and a guide to Mosaic. You also get the first month free, with six hours of free online time from Internet service provider CERFnet. (Ventana Media; 800-209-3342; Mac/Windows, $69.95).

- From Letterman to Lapland, there's probably someone blabbing about it on the Internet. For an excellent overview of the 'Net's myriad resources, check out Internet Info's **What's On the Internet,** a comprehensive guide to more than 1,600 special-interest online discussion groups. (Peach Pit Press; 800-283-9444; $24.95)

- Spaceball Technologies, a developer of high-end design tools used for computer-aided design is entering the consumer market with a lower-priced gaming spaceball called **Galaxys.** The two-handed control with a ball and six buttons give you "six

continued on page 12

Why Not Earp?

Computers and horse opera aren't a natural combo, but Amazing Media's upcoming **Wyatt Earp's Old West** will have you sitting up in your saddle for sure.

Due this fall, the disc will include lots of rollicking video clips, music, animation, hundreds of photos, and plenty of text to tell the story of the Wild West. Set in a typical Western town in 1880, the story will feature about 40 locations, each with mouse-activated hot spots. There'll even be a trivia contest and an arcade-style shooting game to keep things interesting. (Grolier Electronic Publishing; 800-285-4534; CD for Windows/Mac, $49.95)

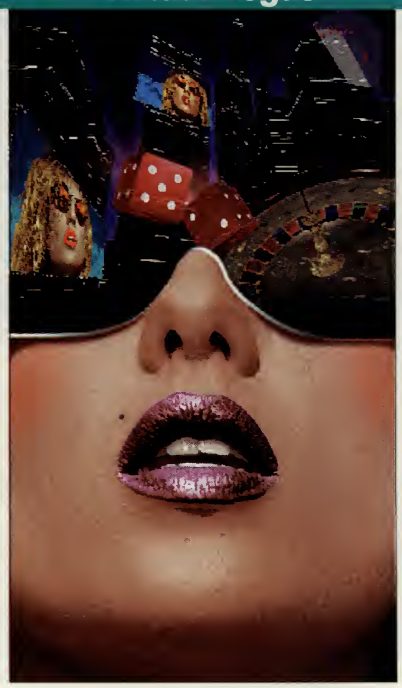
—Fredric Paul

Wyatt Earp's Old West features history, trivia and a shooting game.

Virtual Vegas

There's a lot more than gambling going on in Virtual Vegas. Sure, this new virtual casino has all the games of chance that you'd expect in a casino simulation, but Virtual Vegas isn't just a game. It'll let you explore all the other attractions (especially the racier ones) you would expect when visiting Nevada's adult playland.

Developer David Hirschman describes Virtual Vegas as "a casino environment in cyberspace." Virtual Vegas won't be a single product, but a combination of CD-ROMs, an online service, home shopping, and, eventually, an interactive TV show. A blackjack game will ship this month, and a second title will be available in October. The Windows and Mac titles will do away with the unimpressive graphics of traditional casino simulations in favor of video of live actors superimposed on high-resolution backgrounds.



Like the real Las Vegas, the virtual version will have big events to draw visitors. One is the Miss Metaverse pageant where bikini-clad women compete for the coveted title. (Virtual Vegas; 310-453-5068; CD for Windows/Mac, 3DO, $19.99 each)

–Christine Grech

Star Talk with Herbie Hancock

Jazz keyboardist Herbie Hancock has successfully crossed musical styles and generations. From the free-form jazz of the '60s, when he played with Miles Davis, to his 1983 Grammy-winning single "Rockit," Hancock has moved easily between purist jazz and outright pop. Now he's working on an interactive version of his latest album, called Dis Is the Drum. Electronic Entertainment *contributor J. Olmsted spoke with Hancock about the project.*

E2: What is your vision for *Dis Is the Drum*?

Herbie Hancock: I want to create music that has a lot of levels. I'm trying to put together choices that people can make with the mix. They can move from part of one mix to part of another mix, or even change sounds, choosing which percussion to use, for example—like noise makers you have at a party. But there is only so much room on the disc, and I don't know if it is quite possible to do all the other things I want to do interactively.

E2: Will the disc let listeners remix the music?

HH: No. We will have different mixes already done, and users can choose the one they want depending on which mood they're in. It's easy to make the album sound more like a jazz album or more like an adult contemporary album, or give it more of a vocal emphasis.

E2: Will people be able to change the musical styles?

HH: Not yet. But in the future it will be possible to analyze the styles of different musicians, so the computer can take a piece of music and play it back in the style you choose.

E2: In a broader sense, do you think the technology will get us closer as people, or will we be controlled by it?

HH: There certainly are problems having to do with getting trapped by a bunch of machines. But perhaps these tools will prove that there are other ways to reach people. Then we will overcome being just dazzled by these new toys and really grow up and use them to better communicate with each other and actually make a better world.

Are You Experienced–With Puzzles?

The drugstore slider puzzle will never be the same. Vid Grid from Jasmine Multimedia incorporates nine of MTV's hottest videos into a high-tech puzzle game for Windows PCs.

The rock videos are broken into 9 to 36 pieces each and scrambled continuously in a Video for Windows file. It's your job to unscramble them before the video ends–so that Jimi Hendrix's foot doesn't end up where his guitar should be.

Vid Grid makes it easy to get to your favorite MTV videos.

Vid Grid has five levels of difficulty, each with nine rounds, adding up to a real challenge. If you solve every puzzle before insanity sets in, you're rewarded with a video by a bonus artist.

Featured videos include Peter Gabriel's "Sledgehammer," Van Halen's "Right Now," The Red Hot Chili Peppers' "Give It Away," Metallica's "Enter Sandman," Ozzy Osbourne's "No More Tears," Guns 'N' Roses' "November Rain," Soundgarden's "Spoonman," Aerosmith's "Cryin'," and Hendrix's "Are You Experienced?" (Jasmine Multimedia; 800-798-7535; CD for Windows, $45.95)

–Bill Meyer

You'll fry your brain unscrambling Aerosmith's Cryin'.

NEWSFLASH

degrees of freedom." When you're blazing up a staircase in Doom, spin 180-degrees to blow away some heinous pink things while simultaneously jumping through a closing door. Galaxys is supported by Rebel Assault, Doom, Wolfenstein Spear of Destiny, and Blake Stone.

- Now your kids can run away and join the circus without ever leaving the house, thanks to **Lenny's Circus.** Distributed by Paramount Interactive, this title for ages 5 to 10 is the latest featuring that cool penguin Lenny. Kids will recognize "Full House" TV star Dave Coulier (Joey) as the voice of Lenny.

Inside the Big Top, kids can have characters perform acrobatic feats or fire them from a cannon, using math skills to get the projection just right. (Paramount Interactive; 415-813-8040; CD for Windows/ Mac, $49.95)

- The makers of Rock Video Monthly have created **Rock Video Interactive**. Each disc

offers ten videos per month, interviews with the featured artists, and possibly song lyrics, a jukebox mode, and redbook audio to play the disc on your audio CD player.

- *Life's Little Instruction Book,* by H. Jackson Brown, Jr., rode the *New York Times* best-seller list for years. Now it can ride your computer screen, too. **Life's Little Instruction Book**

continued on page 14

Digital Dating

Everyone's heard stories about people who've met their true loves electronically. But what if you're not a big online prowler, or the idea of striking up a relationship with someone you've never seen before makes you a little nervous?

The answer may be to put a little **CD Romance** into your life. Tag-lined "The Multimedia Meeting Place," Romulus Productions' $50 CD-ROM works kind of like a video dating service, except that you browse it at home. Each quarterly disc contains listings for more than 300 singles.

If you're intrigued by a thumbnail photograph, just click on it to bring up your prospective date's profile. If you like what you see and hear, contact the new-found apple of your eye through Romulus' voice-mail, e-mail, or online systems.

If you'd rather join this dating pool instead of just browsing, it's free to be included in your first disc. After that you'll pay about $50 to have it keep appearing in future editions of the strictly PG-rated title.

Is Valerie the woman of your dreams? Find out more about her in CD Romance.

Click on the prospective date you'd like to get to know better.

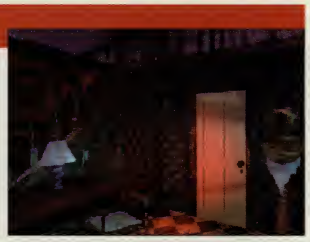
The folks at Romulus will videotape you telling a little bit about yourself, or you can create a tape at home and send it in. A personal data sheet; voice message; and a personal, handwritten note round out your profile. (Romulus Productions; 800-266-4557; CD for Windows/ Mac, $49.95)

—Christine Grech

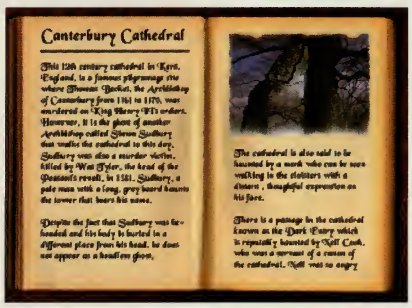
Ghostbusters Unite!

Hunt through the stone chambers and halls of a 3-D English castle in Ghosts and discover the frightful legends haunting Olde England. The title, developed by Media Design Interactive, includes ten rooms in a medieval replica that hold video interviews with four experts (including a priest), plus hundreds of text-based ghost stories. You'll have to decide for yourself if the spirits of ancient and royal England are fact or fiction.

If that's not scary enough, check out an ancient volume in the castle's library filled with illustrated tales of ghouls and goblins, or go on a modern-day ghost hunt with Ghostbusters UK in a haunted pub. In England, even death can't keep the barflies away. (Sony Electronic Publishing; 310-449-2320; CD for Windows/Mac, not yet priced) ***–Bill Meyer***



Watch for ghosts as you wander the medieval castle.



Ghosts' illustrated stories introduce you to the legends of Olde England.

MPEG Makes Its Move

MPEG gets cheaper, easier, and gives you more features, so there's no excuse to do without real video.

There may be a full-motion video board in your future. A torrent of new MPEG-based video playback cards are expected to join Sigma Design's ReelMagic on the market by Christmas.

Just don't plan on huge price cuts. Even with increased competition, you won't be able to get VHS-quality video on your computer with the loose change you find in the couch. Expensive technology and a still small market mean MPEG board prices won't fall much below $400. Instead, look for more features, easier operation, and—finally—MPEG products for the Macintosh.

• **Jakarta** from Jazz Multimedia will combine a graphics accelerator with MPEG video playback on a single card. The combo will save you money, provide better performance, and eliminate compatibility problems. The card's modular design lets you add new features as needed. Initial add-ons include Port of Entry, which lets you watch TV on your PC, and Projector, which sends PC video to your TV or VCR. (Jazz Multimedia; 408-727-8900; PC; approximate street prices: Jakarta, $400 to $450; Port of Entry, $149; Projector, $99 to $129)

• In a similar vein, **VideoImpact** from RasterOps will combine a 64-bit graphics accelerator with MPEG video and audio playback. RasterOps says it is concentrating on making the card as easy to install and use as possible—it even has the company's technical support number printed on it. (RasterOps; 800-729-2656; PC, less than $500)

• **Oscar** from Aztech Labs will attach to the VESA feature connector of standard VGA and Super VGA cards. (Aztech Labs; 800-886-8859; PC, not yet priced)

• **MovieWave Studio** from Multiwave Innovation does more than play back MPEG video and speed Windows graphics. It can capture and compress video using the AVI file format and even includes 3-D surround-sound technology to enhance the audio portion of full-motion video titles. (Multiwave Innovation; 408-379-2900; PC, not yet priced)

• Finally, both Mac and PC users can look for MPEG playback boards from International Interactive Media. The company plans to release **MediaPlayback** cards for both types of computers this fall. (International Interactive Media; 617-890-6565; PC/Mac, less than $600)

—Christopher Lindquist

Sorry, Al

In a nationwide Harris poll of 1,255 people last spring, 66 percent hadn't heard of the information superhighway. Of those earning $50,000 annually, more than half had heard the buzzword, compared to only 23 percent of those earning $7,500 or less.

ILLUSTRATION BY ANTHONY LUKBAN

NEWSFLASH

Screen Saver from JourneyWare Media presents 51 suggestions, observations, and reflections, plus the ability to add your own insights as well. Next, the company is working on *The Book of Questions* by Gregory Stock, Ph.D. (JourneyWare Media; 800-256-1994; Windows, $39.95)

- Simon & Schuster Interactive's **Star Trek: The Next Generation Interactive Technical Manual** (see Sharp Edge, "Star Trek, The Interminable Generations," April 1994, page 10) will be the first title to use Apple's **QuickTime VR.** The technology uses still images instead of video and turns them into 360-degree playlands in which to explore and manipulate objects. Developers can even link sound and degrees of zoom to specific places in the image. Look for QuickTime VR to appear in adventure games and educational programs, as well as museums and kiosks.
- Real-estate mogul Donald Trump is the latest celebrity to join the interactive age. **Trump New York,** a real-estate simulation from Knowledge Adventure spin-off Creative Minds, lets you try to take over Trump's empire. The Donald is retiring, and plans to give everything to the winner of a real-estate contest. Contestants start with $1,000 and finesse their way through deals, negotiations, and permits, often enhanced with live-action video.

Naturally, the winner is the one who makes the most money in a year. One downside: There's no bonus for a messy divorce or running away with a blonde model. (Creative Minds; 310-473-1343; CD for Windows/Mac, 3DO, approximately $75)

Multimedia Mystery Meat

ILLUSTRATION BY ANTHONY LUKBAN

While the general public won't see interactive television for years, college students across the country are already enjoying a limited form of interactive digital programming.

Everyday, more than 500,000 students tune into the **College Television Network,** a video kiosk service that airs dozens of the hottest music videos as well as sports, comedy bits, and news in the cafeterias of more than 200 college campuses. By next fall, 375 campuses and a million students are expected to be hooked into the interactive network.

While dining on mystery meat and Snapple, students can punch in their selections on the touch-screen interface and check them out on kiosks sporting 27-inch color monitors. Selections are updated monthly. Most schools provide the service free.

College students are only the beginning of the network's plans. The company hopes to put similar video kiosks into theater lobbies, showing interviews with the stars or behind-the-scenes peeks at the movie you're about to see.

—James Daly

Comic Relief

When you see names like Smoke, Sharktooth, Johnny Normal, and Quarrior, you gotta be intrigued. These are just a few of the original characters featured in Putnam New Media's Comic Creator, which lets you design your own comic strips.

Base your comics on the plots provided by R. A. Montgomery, the author of the *Choose Your Own Adventure* books, or create your own. Start with one of the 100 backgrounds depicting such locales as cities, space, mystical places, and jungles. Then choose from nine heros and six villains. The characters and backgrounds are already complete. You just put the elements together to create your strip. Add the finishing touches with special effects or some of the more than 200 included sound effects.

Comic Creator lets you view your creations onscreen or print them out in storyboard fashion. The Windows and Mac program is designed for ages 8 and up. It's scheduled to hit the shelves in October. (Putnam New Media; 800-847-5515; CD for Windows/Mac, street price approximately $30 to $35)

–Christine Grech

Circle 67 on Reader Service Card

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Leader Board

The best-selling PC, Mac, and CD-ROM entertainment software

MegaRace by The Software Toolworks debuts at No. 6 on the Leader Board.

PGA Tour Golf II from Electronic Arts bumps Chessmaster 3000 out of the No. 4 spot.

The 5 Ft. 10 Pak from Sirius Publishing stands tall at No. 7.

The Leader Board is a compilation of top-selling software in 1,300 retail stores for April, 1994. Some titles may appear in more than one category. Source: PC Data.

PC GAMES

1 **Myst** Stunning visuals, haunting audio, and logical solutions will keep this revolutionary game on your play list. It's the No. 1 PC, Mac, and CD-ROM game for the second month in a row. (Brøderbund Software; 800-521-6263; CD for DOS, $59.95)

2 **Rebel Assault** Intense 3-D visuals and furious action highlight this *Star Wars* action adventure. (LucasArts Entertainment; 800-782-7927; CD for DOS, $79.95)

3 **SimCity 2000** Build a city of the future with this improved version of the classic. It's still going strong at third place. (Maxis; 800-336-2947; DOS/Windows, $69.95)

4 **Microsoft Flight Simulator 5.0** Upgraded graphics and new features keep this hugely popular flight sim soaring high. It's been in the top five for seven months. (Microsoft; 800-426-9400; DOS, $64.95)

5 **The 7th Guest** The ghost of Henry Stauf just won't go away in this realistic and haunting drama. (Virgin Interactive Entertainment; 800-874-4607; CD for DOS, $99.99)

6 **MegaRace** Impressive cinematic sequences and a wisecracking game-show host set the stage for an auto race to the death. (The Software Toolworks; 800-234-3088; CD for DOS, $69.95)

7 **5 Ft. 10 Pak** Helped by a bargain price, this multidisc compilation of games and multimedia titles—including Doom, Kings Quest VI, Time Man of the Year, and World Fact Book—makes its debut on the Leader Board. (Sirius Publishing; 800-247-0307; CD for Windows, $40)

8 **Elder Scrolls: The Arena** Explore Tamriel's 400 cities, towns, and villages as you search for the eight pieces of the broken Staff of Chaos. (Bethesda Software; 800-677-0700; DOS, $69.95)

9 **SSN-21 Sea Wolf** The sequel to 688 Attack Sub includes video, live actors, and a game of cat and mouse with Russian subs. (Electronic Arts; 800-245-4525; CD for DOS, $59.95)

10 **Betrayal at Krondor** Safely escort a disguised messenger for the king through a mystical land filled with spies and assassins. (Dynamix; 800-757-7707; CD for DOS, $29.95)

MAC GAMES

1 **Myst** Stunning visuals, haunting audio, and logical solutions will keep this compelling and revolutionary game high on your play list. It's No. 1 across the board. (Brøderbund Software; 800-521-6263; CD for Mac, $59.95)

2 **SimCity 2000** Construct the city of the future with this improved version of the classic simulation title. It's hanging in there in the No. 2 spot. (Maxis; 800-336-2947; Mac, $39.95)

3 **The 7th Guest** The ghost of Henry Stauf just won't go away in this realistic and haunting drama. The PC hit is enjoying similar success on the Mac charts. (Virgin Interactive Entertainment; 800-874-4607; CD for Mac, $99.99)

4 **PGA Tour Golf II** Compete in six tournaments against ten of the PGA's best, including Fred Couples and Tom Kite. (Electronic Arts; 800-245-4525; Mac, $59.95)

5 **Chessmaster 3000** You play against computerized masters who mimic the moves of the world's best players. (The Software Toolworks; 800-234-3088; Mac, $49.95)

CD-ROM TITLES

1 **Myst** Stunning visuals, haunting audio, and logical solutions will keep this compelling and revolutionary game on your play list. It's the No. 1 CD-ROM title for the second month in a row. (Brøderbund Software; 800-521-6263; CD for Windows/Mac, $59.95)

2 **Rebel Assault** Intense 3-D graphics and furious action highlight this *Star Wars* action adventure. It's holding fast at No. 2. (LucasArts Entertainment; 800-782-7927; CD for DOS, $79.95)

3 **The 7th Guest** The ghost of Henry Stauf just won't go away in this realistic and haunting drama now in its ninth month on the Leader Board. (Virgin Interactive Entertainment; 800-874-4607; CD for DOS/Mac, CD-i, $99.99)

4 **MegaRace** Impressive cinematic sequences and a wisecracking game-show host set the stage for an auto race to the death. (The Software Toolworks; 800-234-3088; CD for DOS, $69.95)

5 **The Print Shop Deluxe CD Ensemble** Five easy-to-use desktop publishing programs bundled on a single disc. (Brøderbund; 800-521-6263; CD for Windows, $79.95)

6 **Microsoft Encarta** Experience the world around you through video segments, audio clips, animation, and text in this high-tech encyclopedia. (Microsoft; 800-426-9400; CD for Windows/Mac, $139)

7 **5 Ft. 10 Pak** A bargain-priced compilation of games and multimedia titles, including Doom, Kings Quest VI, Time Man of the Year, and World Fact Book. (Sirius Publishing; 800-247-0307; CD for Windows, $40)

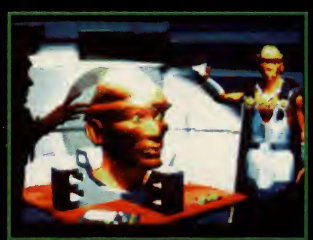
8 **Betrayal at Krondor** Safely escort a disguised royal messenger through a mystical land filled with spies and assassins. (Dynamix; 800-757-7707; CD for DOS, $29.95)

9 **Ultima VIII: Pagan** The latest chapter in the Ultima saga deposits Avatar in a strange land filled with mystery and unfriendly natives. Crisp dialog and attention to detail make it a standout. (Origin Systems; 800-245-4525; CD for DOS, $79.95)

10 **Key Color ClipArt** Get 2,500 pieces of clip art spanning dozens of categories—all organized in an easy-to-use scrapbook. (SoftKey; 800-323-8088; CD for Windows/Mac, $39.95)

SURE YOU COULD DIE, BUT THAT'S LIFE.

- The Gorene Empire is at war with the Alien Alliance. The ally you choose and the battle strategy you devise will determine who controls the Ascalon Rift.
- Choose your ally from either of opposing sides. Fly eleven different ships loaded with weaponry. Depart for over 100 varying missions. Then switch sides for unparalleled replayability.
- Plot strategies, orchestrate battles, fly stealth missions, and conquer territories, with full combat inside nebulas and asteroid fields.
- Riveting hyper-realistic 3-D graphics, with fully texture-mapped ships, on-the-fly translucency, Gouraud and Phong shading, and cinematic multimedia videos.
- Driving music, searing sound effects and, on the CD-ROM version, fully digitized speech delivered by professional actors.



FOR IBM PC AND IBM PC CD ROM

Distributed by GAMETEK

TAKE 2 INTERACTIVE SOFTWARE

Circle 147 on Reader Service Card

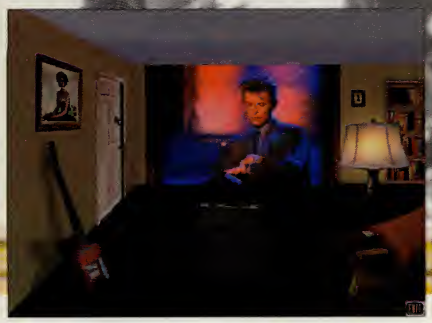
Circle 152 on Reader Service Card

QUARANTINE
If you've got the RAM, we've got the pedestrians.

Spotlight

DAVID BOWIE INTERACTIVE

Ch-ch-ch-ch-changes (Bowie style)



Inside the palace of the Thin White Duke.

Knobs and buttons are your cinematic tools.

David Bowie has always been a rock 'n' roll chameleon. Over the years he's played the part of androgynous glam rocker, cool Brit crooner, hard-edged techno-pop diva, spaced-out actor, and even mainstream arena crowd-pleaser. Now he's trying his luck as an interactive multimedia pioneer—and he needs a little help from his friends.

Jump The David Bowie Interactive CD-ROM lets you remix the video for "Jump: They Say," a tune from his moderately successful 1992 release *Black Tie, White Noise*. Click on one of five different video tracks to assemble your own customized rock video. It's fun, but it ain't easy. Be sure to listen to the entire song a couple times before you start, or you'll always be a few bars behind. You can also remix the song's audio.

The video control room is set in the silvery hallways of a vaguely futuristic skyscraper. You can enter three other rooms filled with interesting interactive objects, such as a telescope that offers voyeuristic access to additional rooms in a building across the street. Click on shoes, guitars, paintings, and telephones to have them spring to life, or watch four full-length videos taken from *Black Tie, White Noise*. You can also check out a rather dull interactive interview with the man himself.

The QuickTime videos take advantage of both single- and double-speed CD-ROM drives, so better equipment yields better results. But you can't control the playback, and navigation through the rooms is painfully slow even on a fast Macintosh. A PC version is due this fall. And while Jump is put together well and fun to explore, the disc's options are limited compared to richer interactive music offerings already on the market. (Ion; 310-312-8060; CD for Mac, $49.95)

–Fredric Paul

Give Your PC a Sporting Chance

Back-back-back-back-back."

ESPN sports announcer Chris Berman's signature supercharged pronouncements are now available as sound files for Microsoft Windows. Billed as "athletic support for your desktop," **ESPN Sports Shorts** is a testosterone-crazed version of Moon Valley Software's popular ROMaterial discs. The collection of breathless Berman sound bites, sports-oriented video clips, trivia games, and cute animated icons and cursors add life to Windows events, such as error messages. It changes boring icons to balls, bats, and other implements of competition and also turns your idle PC screen into an ESPN SportsCenter highlights show. If you're not a sports fan or Chris Berman fan, though, the incessant yelling may drive you insane. (Moon Valley Software; 800-473-2748; CD for Windows, $39.99)

Babbling Berman in a rare moment without his tongue flapping.

–Fredric Paul

A Sound Addition

Three-dimensional sound is the current rage, with QSound, Advanced Gravis, and others battling it out to supply the noise that surrounds your favorite games and multimedia titles.

But if you aren't interested in dropping $300 for a new 3-D sound card with limited software support, there is a cheaper alternative: NuReality's **Vivid 3D Sound Enhancement System** adds pseudo-3-D sound to your current setup.

Vivid 3D gives your computer sound system an inexpensive boost.

The Vivid 3D is a black box that attaches between a sound card and speakers. The box uses SRS Labs' Sound Retrieval System technology to reveal locational audio cues supposedly hidden inside all recorded sound. And while the Vivid 3D may not have you ducking to avoid incoming aircraft, it definitely improves the aural excitement of almost any game.

You'll notice the difference the first time you use it. The stereo field appears much wider on stereo soundtracks, while mono sound effects and music become richer and more intense. Do you hear beasties sneaking up behind you in Doom? No, but you'll jump a little higher when they roar in your ear.

The Vivid 3D box isn't without flaws. It adds a noticeable and sometimes annoying hiss to everything, and at just under $100, the Vivid 3D isn't exactly free. But for true sound junkies, it's a quick and easy way to add some new life to your games. (NuReality; 800-501-8086; PC/Mac, $99) *–Christopher Lindquist*

Library of the Future has a meager video collection.

Text Heavy

It would take you years to read the more than 3,500 works of literature in the 3rd Edition of World Library's Library of the Future. You can watch the disc's collection of video clips, however, in less than 15 minutes.

That's the problem with this compilation of public domain writings. It's billed as multimedia, but it's really a text-based research tool with a couple of largely superfluous enhancements. (World Library; 800-443-0238; CD for Windows/DOS, $145)

–Fredric Paul

History as It Happened

Folks who like the way *Time* magazine interprets history will want to check out Time Almanac of the 20th Century, a tour of the last 90-odd years through 2,000 articles, 500 archival photos, 12 photo essays, dozens of charts, and 40 minutes of video.

Take a walk through the century, a decade at a Time.

Tackling a century is a tall order, so a toolbar gives you multiple ways to navigate through the program. A time line, for instance, lets you quickly pull up a decade's highlights. Each decade screen has a section on elections, top stories, and key historical events such as the women's movement, Vietnam War, or the space program. There's also a trivia game called Newsquest in which you play the part of a *Time* researcher who needs to answer a series of question before a 5 p.m. deadline.

The photo essays are some of the best things about the Almanac. While video clips of such events as the 1960s Watts riots, Nixon's Checkers speech, and the World Trade Center bombing are interesting, the various photo essays are multifaceted and offer a deeper look at specific events and people.

But because the subject matter is so broad, you'll come across a lot of information that isn't supported by visuals or audio. And while populist broad-based opinions get a good airing, this title could use a little more news on the counterculture. For political minds interested in small doses of a lot of material, it's definitely an entertaining and informative piece of work. (Compact Publishing; 800-964-1518; CD for Windows, $69.95)

–Bill Meyer

The 1950s brought the opportunity to zone out in front of the idiot box.

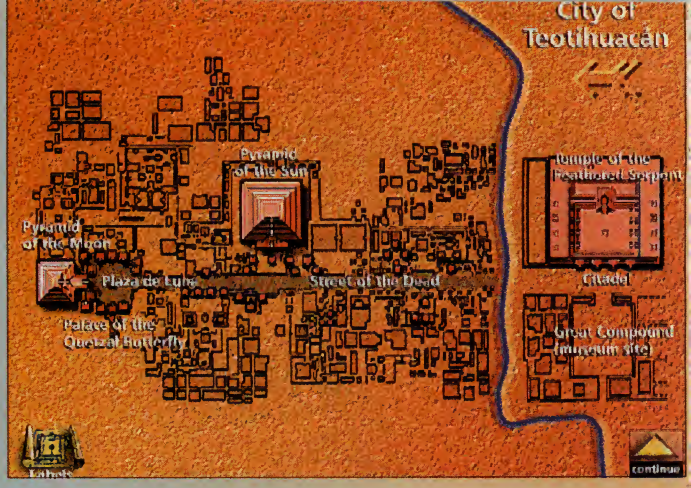
Spotlight

EXPLORING ANCIENT CITIES

Rubble Without a Cause

Master carvers in the Mexican town of Teotihuacán chiseled out this ugly customer.

If you're into poking around the past, get your hands on **Exploring Ancient Cities,** a high-tech tour of four cornerstone civilizations of the ancient world. Software developer Sumeria has teamed up with *Scientific American* to fashion an interactive tour of the ruins of Petra in the Middle East, the Mexican valley metropolis of Teotihuacán, Pompeii (which was just a chariot's throw from Rome), and Bronze Age palaces on the isle of Crete.



Armchair travelers can get a bird's-eye view of their favorite ancient civilization.

Indulge your time travel fantasies by delving into key cultural advances—painting or architecture, for instance—or settle in for a 20- to 35-minute slide show of each society. Beautifully textured maps not only offer a bird's-eye view of the sites but let you instantly swoop down by pointing and clicking your mouse. Brief videos, evocative music, and dozens of color photos round out the package.

Unfortunately, the narrated text that accompanies illustrations is as moldy as the remains it depicts. While historically thorough, it's dry as dust. There's nothing more depressing than hearing the rich artwork of Pompeii sapped of its energy by a droning academic.

Instead of looking at these civilizations as cultural mummies, it would have been more fun to resurrect them as the vibrant societies they once were. Sumeria could have used crisp 3-D imaging and virtual-reality techniques to plunge you into the middle of an ancient marketplace, for instance. Then it would really feel like you were getting a little dust beneath your sandals. (Sumeria; 800-478-6374; CD for Windows/Mac, $59.95)

—James Daly

Spaceheads

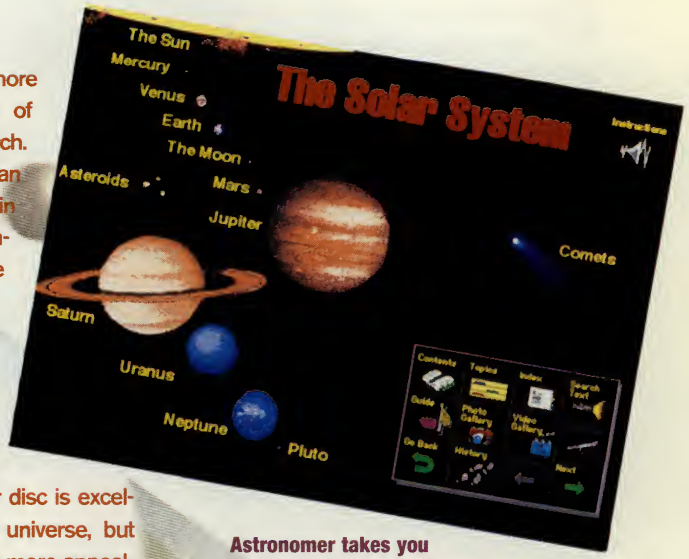
Roaming the galaxy no longer requires a spaceship and a few million gallons of rocket fuel. All it takes is your PC, a CD-ROM drive, and a pair of new titles. **Astronomer** from Expert Software and **Beyond Planet Earth** from the Discovery Channel go a long way toward acquainting you with the secrets of outer space.

Astronomer is the more informative of the programs while Beyond Planet Earth is flashier. Beyond's video screen is wider and clearer than Astronomer's, giving it a more "theatrical" look. The Mission to Mars segment, for example, offers footage of President Bush's declaration that he wants to plant the U.S. flag on the red planet. Beyond also gives you an opportunity to simulate a private chat in the Q&A segment called Space Experts, which lets you ask the same questions of four different astronauts and scientists.

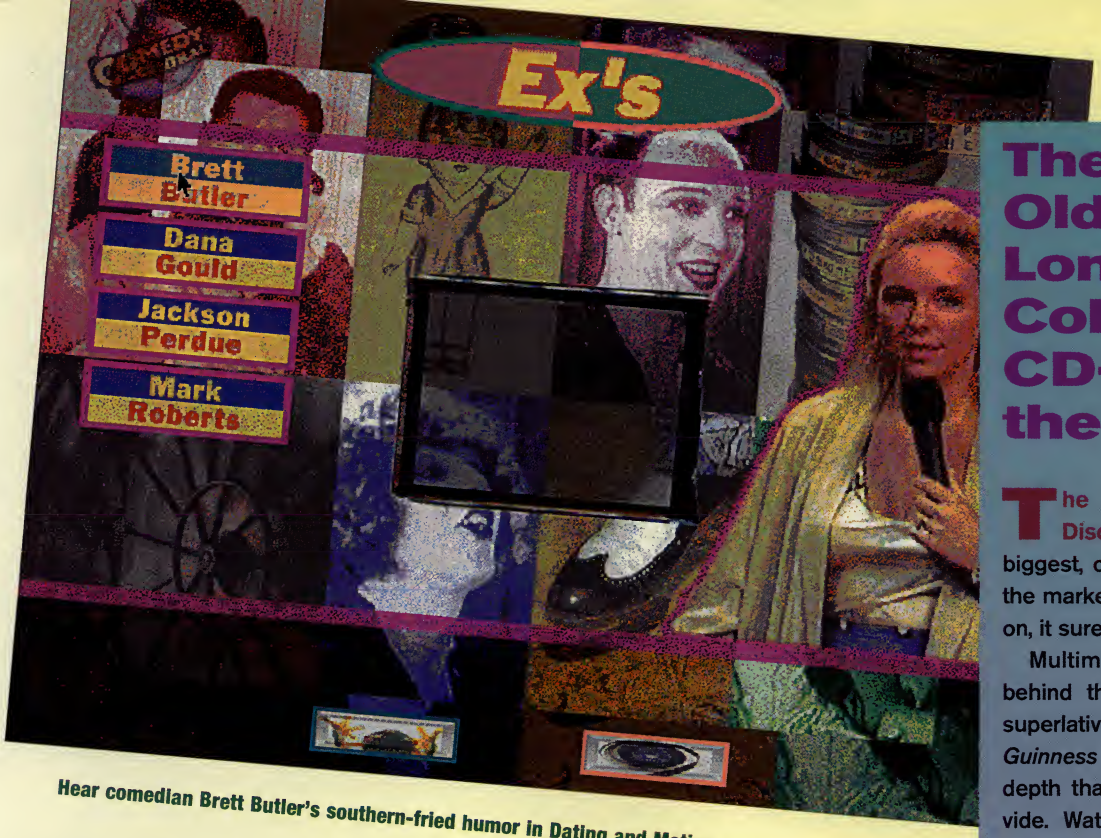
Astronomer serves up a more technically detailed account of space exploration and research. With the Location menu you can position yourself anywhere in the solar system or print high-quality star charts to use in the classroom or at home.

Both discs afford easy cross-referencing. Astronomer's interface contains a History icon that allows you to see a list of everything you've already viewed. Either disc is excellent for learning about the universe, but Beyond Planet Earth is vastly more appealing visually and takes better advantage of the multimedia format than its stargazing counterpart. (Beyond Planet Earth: Discovery Communications; 301-986-0444 x5880; CD for Windows, $49.95. Astronomer: Expert Software; 800-759-2562; CD for Windows, $49.95)

—Joel Enos



Astronomer takes you to the stars and back again.



Hear comedian Brett Butler's southern-fried humor in Dating and Mating.

Tee-hee for Your PC

Computers don't generally have a sense of humor, but you can change that with the **Comedy Central** discs from Time-Warner Interactive Group.

Powered by video clips of comedians like Richard Lewis, Brett Butler, and "Saturday Night Live" regulars Adam Sandler and Ellen Cleghorne, the series uses interactive multimedia to send you directly to your favorite subject or comedian. Select Brett Butler, for example, and watch her relate how she used to be married when she was really young: "Well, I was 20. That's young here. In Georgia I was a spinster."

The latest edition, **Dating & Mating,** joins **It's All Relative** with almost 50 new bits on ten topics ranging from Sex to Ex's, and Pick Up to Breakup. You can get to the funny stuff right away because the attractive interface is easy to master. There's even a screen saver that pops up jokes to relieve the tedium of spreadsheets and word processors.

Unfortunately, the video window is so small that it's hard to see the subtleties of the comedians' expressions and movements—even in close-ups. And once you've heard all the jokes and sketches, the Comedy Central discs may spend more time on the shelf than in your CD-ROM drive. (Time-Warner Interactive Group; 800-482-3766; CD for Windows/Mac, $49.99) *—Fredric Paul*

The Tallest, Oldest, Longest, Coldest CD-ROM in the World

The 1994 Guinness Multimedia Disc of Records isn't the fastest, biggest, or most powerful CD-ROM on the market. But like the book it's based on, it sure is fun.

Multimedia brings out the drama behind the 3,800 feats, oddities, and superlatives listed in the best-selling *Guinness Book of Records* and adds a depth that the printed page can't provide. Watching 8-foot, 11-inch Robert

Step right up for the tallest, shortest, fattest, thinnest, biggest, oldest.

Wadlow, the world's tallest man, play leapfrog or drop a basketball into a hoop without jumping illuminates the uniqueness of his life far better than a mere photograph could.

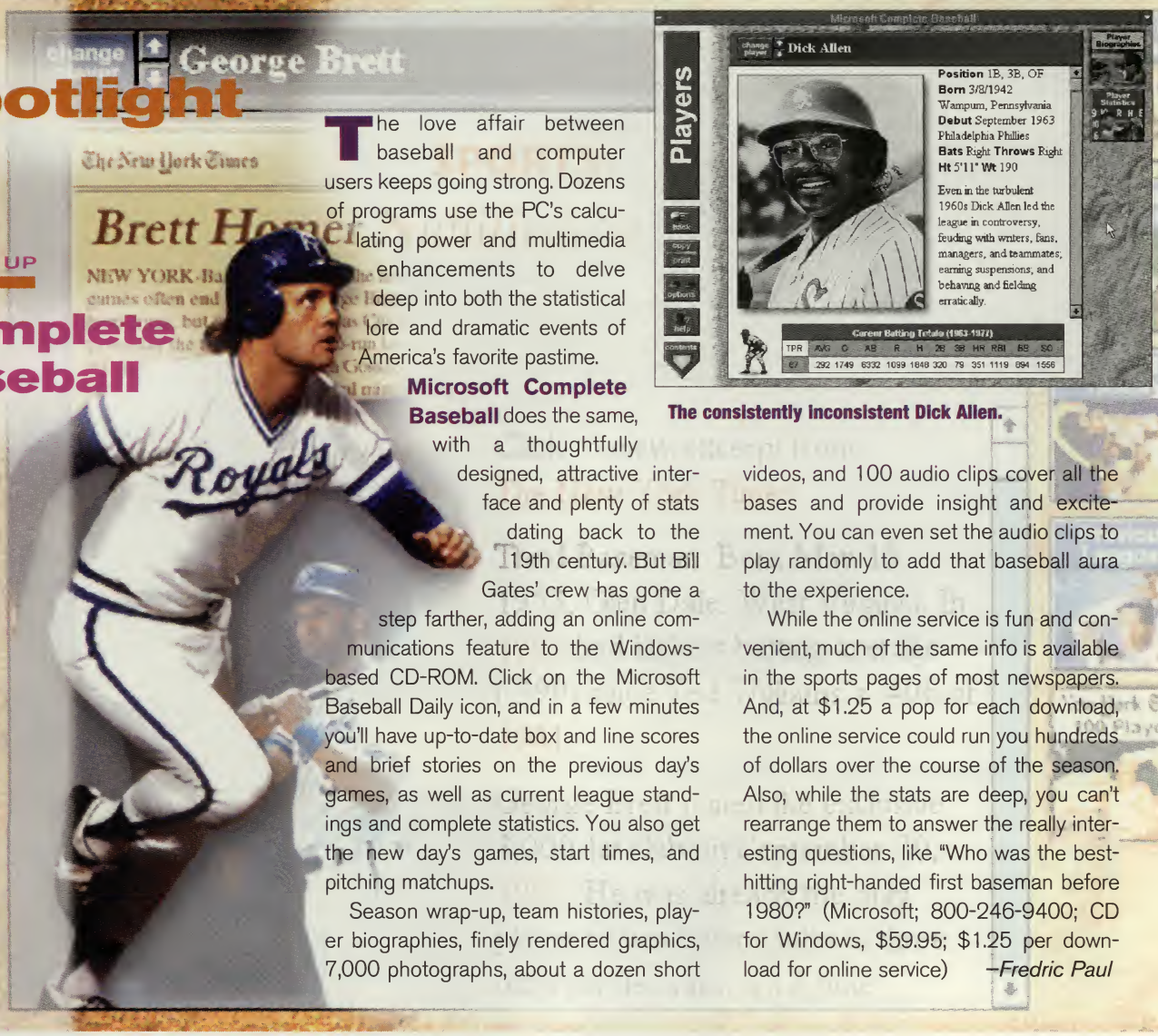
In addition to the complete text of the book, the disc includes 50 videos, 850 photos (250 more than the book), and 200 new record categories for 1994. There's also an improved interface and a search engine that lets you hunt by topic, word, record, superlative, or multimedia enhancement, such as audio and video. You also get tips from experts in various fields and a Random Record Explorer for an entertaining slide show of obscure oddities.

Best of all, this year Grolier packages the disc with the paperback book, so you can find out who makes the world's most powerful computer even when you're not near yours. (Grolier Electronic Publishing; 800-285-4534; CD for Windows/Mac, $49.95) *—Fredric Paul*

Spotlight

BATTER UP

Complete Baseball



The consistently inconsistent Dick Allen.

The love affair between baseball and computer users keeps going strong. Dozens of programs use the PC's calculating power and multimedia enhancements to delve deep into both the statistical lore and dramatic events of America's favorite pastime.

Microsoft Complete Baseball does the same, with a thoughtfully designed, attractive interface and plenty of stats dating back to the 19th century. But Bill Gates' crew has gone a step farther, adding an online communications feature to the Windows-based CD-ROM. Click on the Microsoft Baseball Daily icon, and in a few minutes you'll have up-to-date box and line scores and brief stories on the previous day's games, as well as current league standings and complete statistics. You also get the new day's games, start times, and pitching matchups.

Season wrap-up, team histories, player biographies, finely rendered graphics, 7,000 photographs, about a dozen short videos, and 100 audio clips cover all the bases and provide insight and excitement. You can even set the audio clips to play randomly to add that baseball aura to the experience.

While the online service is fun and convenient, much of the same info is available in the sports pages of most newspapers. And, at $1.25 a pop for each download, the online service could run you hundreds of dollars over the course of the season. Also, while the stats are deep, you can't rearrange them to answer the really interesting questions, like "Who was the best-hitting right-handed first baseman before 1980?" (Microsoft; 800-246-9400; CD for Windows, $59.95; $1.25 per download for online service) *–Fredric Paul*

Home Improvement

ILLUSTRATION BY ANTHONY LUKBAN

As my favorite electrical engineering joke goes, you can't spell "geek" without "EE." But you don't need to be an expert to get a jolt out of **Get Wired!**, the second title in Books That Work's Home Survival Toolkit series, designed to help non-engineers become home electricians.

Sound dangerous? Sure. But load it up and you'll see that Get Wired!'s easy interface and thorough help system demystify home wiring faster than you can say "circuit breaker." And speaking of circuit breakers, this title defines all the electrical components you're not sure about, animates how they work together, and even lets you simulate what would happen in your own home wiring designs.

The Circuit Simulator lets you click and drag switches, lights, power supplies, and wires together to create a complete electrical system, then simulate how the current will rush through your design before you actually connect the wires in your house. This feature alone could save you from being shocked six ways to Sunday.

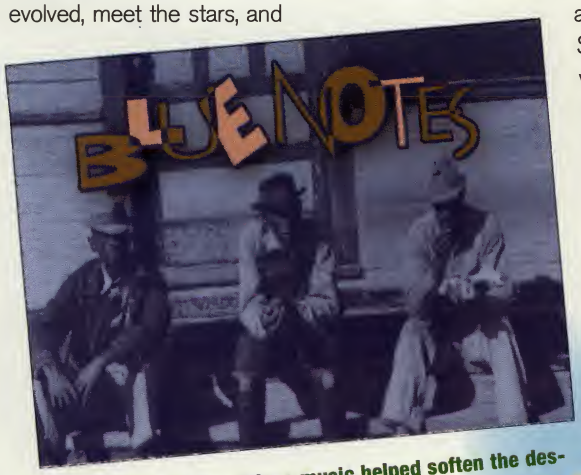
With Get Wired!, you'll no longer have to face the condescending clerks at the hardware store, either. The title's Hardware Store section displays more than 100 detailed illustrations of cables, tools, and components, tells you what they are, and explains how to use them.

If you're thinking about rewiring (or wiring from scratch) your home office, family entertainment system, or home lighting, Get Wired! is a great investment. And even if you're just interested in how things work, it's still a lot of fun. (Books That Work; 800-242-4546; Windows, $19.95) *–Gina Smith*

From Downhome to Uptown

Chicagoans can find some of the world's best blues performers on the radio, in clubs, and even on the street. If you aren't so fortunate, Philips Interactive Media gives you a way to listen too. You can also learn about how the music evolved, meet the stars, and even check out the sometimes hard-to-decipher lyrics.

B.B. King and his guitar, Lucille, rocked their way from jukejoint to international stardom.



The healing power of blues music helped soften the desperate poverty of delta farm workers.

The **Downhome Blues** and **The Uptown Blues,** a pair of new CD-i discs produced for Philips by Lunaria and The Smithsonian Institution, tell the story of how African-American bluesmen and women transformed African music and gospel into acoustic delta blues and eventually into the electric urban blues of the Windy City.

Narrated by William Clark, Reuben Jackson, and blues singer and National Public Radio host Ruth Brown, the discs feature photographs, animations, videos, profiles, interviews, and dozens of full-length songs—from superstars like Muddy Waters and B.B. King to lesser-known artists like Elizabeth Cotton and Snooks Eaglin. The discs convey both the joy of the blues and the harsh conditions that spawned them.

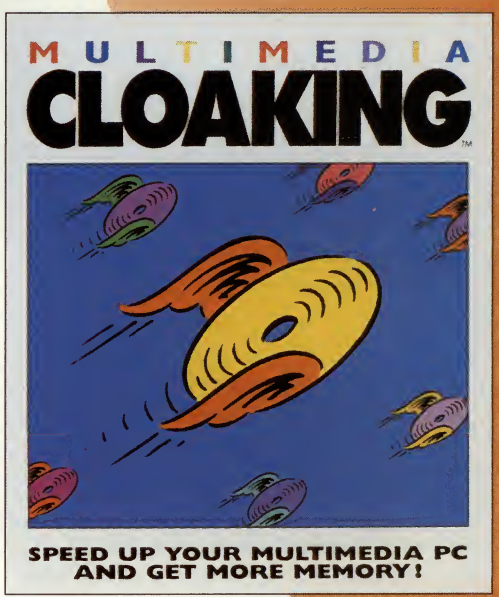
Unfortunately, they don't use Redbook audio, so you can't play them on audio CD players. About the only other things missing are a few signature tunes and a little more detail about the wide influence of the blues on other musical forms. Even if you're not a blues fan, these discs will give you new perspective on whatever music you listen to. As Muddy Waters once sang, "The Blues Had a Baby, and They Called It Rock 'n' Roll." (Philips Interactive Media; 800-845-7301; CD-i, $49.95 for both discs)

—Fredric Paul

Rx for the Low-Memory Blues

Down in the dumps with the low-memory blues? Helix has a cure for what ails you. Multimedia Cloaking opens up conventional and upper memory space on your PC by replacing some common software—including disk caches, CD-ROM extensions, and mouse drivers—with smaller versions that work just as well, if not better. The result is more room to run your games and multimedia titles and the elimination (hopefully) of the "Not Enough Memory" nightmare.

A simple installation routine lets you pick what software to load, including a Microsoft- and Logitech-compatible mouse driver; a disk cache that speeds up CD-ROM, hard, and floppy drives; and a smaller version of the MSCDEX.EXE CD-ROM driver.



Eliminate the "Not Enough Memory" nightmare with Multimedia Cloaking.

It may sound too good to be true, but it works. Our testing managed to retrieve as much as 18KB of conventional memory (the place where your programs run) and more than 40KB of upper memory (the place where some device drivers can reside) on several different systems. At less than $40, it's a bargain you shouldn't pass up. (Helix Software; 718-392-3100; DOS, $39.95)

—Christopher Lindquist

Spotlight

DEAR DIARY

Behind the Scenes with Tricky Dick

Haldeman chats it up with his boss.

Love him or loathe him, Richard Nixon cut an unparalleled swath through late-20th-century American political life. So if politics is your passion, **The Haldeman Diaries–Inside The Nixon White House** offers a rare chance to explore the mental workings of the Red-baiting/press-hating/wiretapping former vice-president and president.

H. R. Haldeman, Nixon's chief of staff, set aside time each evening to pen notes in a personal diary. Like its hardcover counterpart, the multimedia edition of The Haldeman Diaries is a fascinating insider's guide to one of the stormiest presidencies in American history. CD-ROM technology, however, allows it to go one step further through the addition of more than 700 still images and 45 minutes of video shot by Haldeman during his White House tenure.

A cluttered desk replete with a video camera, photo album, diary, and newspaper serves as your launching pad.

Nixon remains an icy, almost creepy figure throughout the diary's 2,200 pages. During a celebratory dinner, for instance, Nixon calls for his best bottle of wine. Haldeman discovers, however, that the wine is meant only for Nixon, while aides must swill low-budget booze. When Nixon fires Haldeman, Haldeman records that Nixon "shook hands with me, which is the first time he's ever done that." They had worked together for ten years.

Unfortunately, the diary is edited, sometimes in the strangest places. The purging of an entry that describes a Cabinet briefing on the Strategic Arms Limitation Treaty doesn't make any sense. The events concern an obsolete treaty with a government that no longer exists.

The Diaries also include a never-mailed letter Haldemen sent to a prosecuting attorney in which he explains why he thought he was innocent of the administration's celebrated wrongdoings. Haldeman may have been emotionally distant from his old boss, but Tricky Dick still managed to teach him a thing or two.

A Mac version is due later this year. (Sony Imagesoft; 310-449-2999; CD for DOS/Windows, $69.95) *–James Daly*

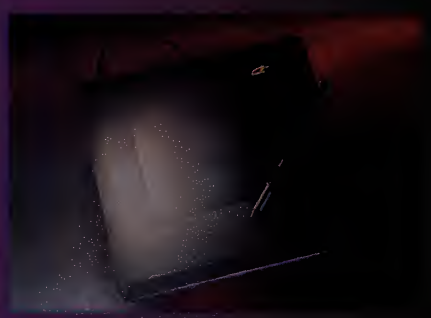
A littered desktop serves as the launching point for your tour of the Nixon administration.

The amateur shutterbug strikes again.

Doodle Bug

Slackers looking for a fun, new way to waste time at the office, will quickly develop a serious doodling habit with Kurta's new **Kurta Pen Mouse and Dabbler Bundle.** The Pen Mouse and pad works like a mouse for your boring office software. But use it with the accompanying Dabbler program from Fractal Designs, and you can doodle away the hours with incredible finesse and precision. If you're a doodler at heart, you won't want to miss this real deal: just $248 for the whole package. (Kurta, 800-455-8782; PC/Mac, $248)

–Gina Smith



Funny Bones

Human anatomy was never so much fun. **A.D.A.M. The Inside Story** takes you on an animated journey through the human body, through thousands of

Adam and Eve take you on a top-down journey through the human body.

beautifully rendered medical illustrations, and 52 original animations. And with modern day Adam and Eve as your guides, the disc will have you laughing while you learn. (A.D.A.M. Software; 800-755-2326; CD for Windows/Mac, $79)

–Gina Smith

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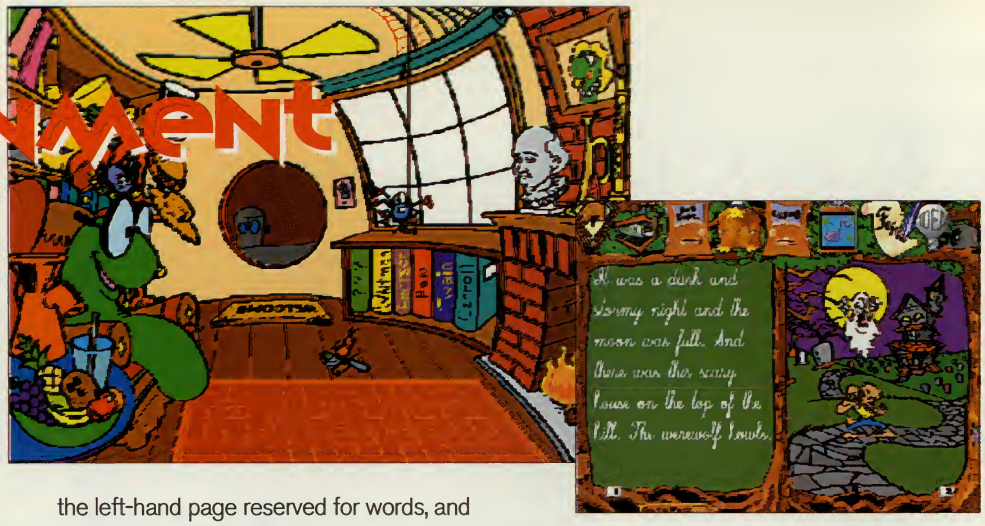


CREATE A DIGITAL STORY

Meet a Beguiling Bookworm

Money doesn't grow on trees, but books do—if you're in Storyland, that is. In Music Pen's **Wiggins in Storyland,** kids aged 4 to 9 learn this firsthand as Wiggins the bookworm helps them create their own interactive storybooks, complete with sound, animations, and music.

Kids create their own storybooks in Wiggins in Storyland.

The main screen in Wiggins uses a book metaphor, appropriately enough, with the left-hand page reserved for words, and the right-hand side for pictures. The program helps kids overcome writer's block by providing backgrounds, props, and characters for eight different themes. They can select a creepy-looking house on the hill for a setting, then add ghoulish characters and appropriate details. Once the scene on the right-hand page is set, they can get more inspiration from the Idea Lightbulb, which suggests how to start writing the story, and the Word Duck, who offers appropriate nouns, verbs, and adjectives.

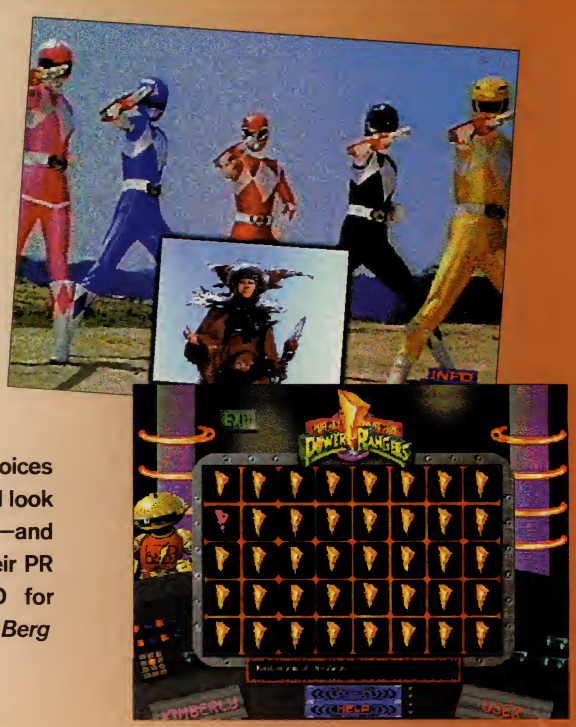
Kids can further personalize their stories by adding background music (from 40 selections) and customizing their book's typeface, border, and jacket. They can even narrate the story, if the computer has a microphone.

When the little ones grow tired of crafting the next great American children's story, they can explore Wiggins's library. This screen is filled with animated hot spots and such diversions as a maze game, ticktacktoe, a chance to paint the room, and readings from famous books.

It won't be long, though, before adventurous tykes hop back into the elevator and pluck an old favorite to read or create a new story where they can send circus animals to outer space or monsters to the old West. Whatever they choose, your kids will have have a great time in this thoroughly entertaining and engaging title. (Media Vision; 800-845-5870; CD for Windows, $59.95)

–Christine Grech

It's Morphin Time!



The intrepid teenage adventurers from the popular Fox TV show have been transformed again, appearing in yet another marketing guise.

Thanks to Xiphias and Paramount Pictures, kids can now have round-the-clock access to five action-packed shows of the Mighty Morphin Power Rangers. Each show features one of the Rangers in a leading role, and each is divided into ten segments, including a public service announcement. Click on a scene, and a video segment plays in a window that occupies less than a quarter of the screen, while a color still fills the background. The video quality under Windows is good, although the missynched audio (not unlike that in the dubbed portions of the TV show) is distracting for the adults—but not the kids.

Interactive it's not—the program's interface is a simple grid, and the only choices involve the order of scenes—so anyone who wants a game or a challenge should look elsewhere. But couch-potato kids who can't get enough of the Power Rangers—and whose parents have a powerful multimedia computer—will want this disc in their PR collections, right beside the Megazord. (Paramount; 415-812-8200; CD for Windows/Mac, $39.95)

–Peggy Berg

Digital Crayons

There's no better combo than a coloring book and crayons for bringing out kids' creative side. Or, there wasn't before Micrografx, maker of sophisticated graphics software for grown-ups, teamed up with Crayola to produce a pair of programs that bring arts and crafts into the computer age.

Crayola Amazing Art Adventure for ages 3 to 6 and **Crayola Art Studio** for ages 6 to 12 share a similar interface—

The coloring screen in Art Adventure has fewer choices than the one in Art Studio.

a kid's room filled with colorful, clickable hot spots. The activities offered are similar in both, with allowances made for differences in skill and interest. Art Adventure, for example, offers Monster Mix-up, in which kids mix and match three-segmented creatures. In Art Studio, the more plentiful options include gender-specific Fashion and Vehicle Designers.

You'll find a similar disparity in the Crayola Paint Program, which serves as the centerpiece of each program. In the Adventure version, a more limited array of choices (16 rather than 24 colors, 6 color effects instead of 10) makes the experience more manageable. Kids can do practically anything on the screen that they can on paper—paint, write, draw with markers or crayons, apply stickers—as well as drop in animations, add "magic effects," and make "crazy lines." These last two, in which the computer provides the art ready-made, are bound to be favorites of kids whose talents aren't quite adequate for their vision.

Your child doesn't have to be a young Van Gogh to enjoy these programs, either. My 6-year-old testers spent several hours completely engrossed by the gamelike qualities of the Dragon's Birthday and Silly Scenes coloring books in Art Adventure, without producing a single masterpiece. And when they did make it to the paint program, they were mainly interested in the erase function, which features 19 catastrophic ways to undo all or part of a picture, including explosions and flushing toilets. (Micrografx; 800-227-3283; Windows, $59.95 each) *–Peggy Berg*

Older kids will have fun discovering the surprises in Art Studio's main screen.

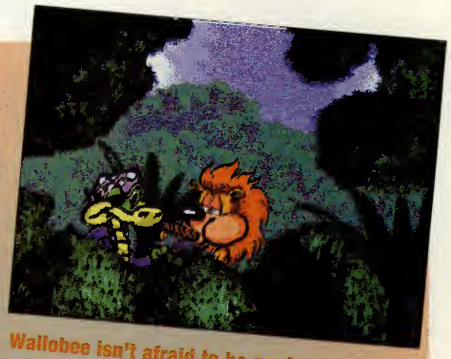
Say G'day to Wallobee Jack

Wallobee Jack: The Thai Sun Adventure might remind your kids of the *Indiana Jones* movies, except there are no Nazis or American archeologists here. Instead, your kids join the adventures of a no-nonsense Australian kangaroo named Wallobee and a bodacious

The detective from Down Under starts snooping around Thailand.

kitty named Francesca Fellini.

The best thing about this WordPerfect Main Street title (the second in the Wallobee Jack series) is that all the characters, such as Wallobee, Francesca, and Dugan the crocodile, have personality. Their cartoon look, accents, jokes, and general banter add real spirit and humor to the title. Wallobee does have some informative asides but in general it doesn't bend over backwards



Wallobee isn't afraid to be goofy or slapstick.

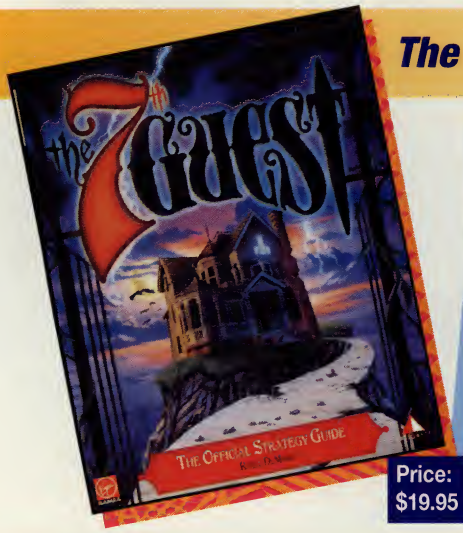
to be overly educational.

Wallobee isn't afraid to be goofy or slapstick either. An exchange reminiscent of Abbott and Costello's "Who's On First" routine pops up when Wallobee doesn't understand that the password into Buffalo Bart's club is "I Can't Remember."

The title's interactivity is limited to kids using a microscope or bomb icon to find hidden hot spots on the screen when they're cued to do so. Hitting the right spot advances Wallobee and Francesca or punishes Dugan.

Each location Wallobee and his friends visit has the proper theme music and sound effects (river currents, crickets) to set the mood and keep your kids from noticing lengthy load times when the characters are sitting stiffly against the inert backgrounds. A few abrupt stops in the music and dialogue disrupt the play a bit, but overall the Wallobee series is worth a look. (WordPerfect; 800-451-5151; CD for Windows/Mac, $29.95) *–Bill Meyer*

Electronic Entertainment



The 7th Guest: The Official Strategy Guide

Rusel DeMaria

Welcome to Stauf's Mansion…this is your passport into the haunted 3D world of the hottest-selling CD ROM around! Unlock the door to every room and discover all the secrets behind each door. This strategy guide also features exclusive views of many of the rooms in the mansion, shown from new angles not found in the game itself! This is the ONLY authorized strategy guide available and is a must have for fans of The 7th Guest!

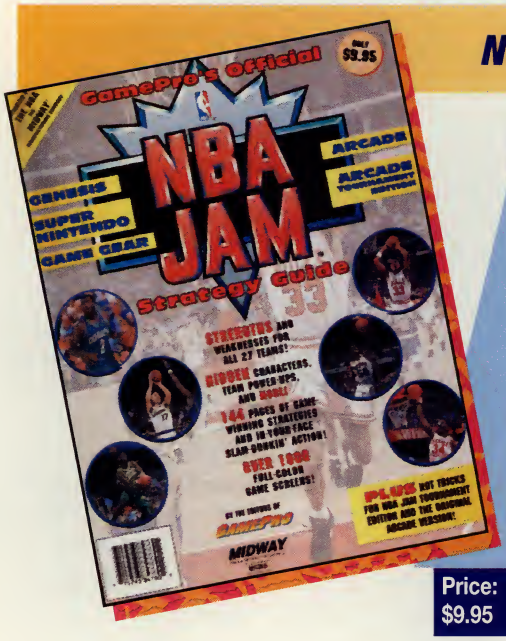
Price: $19.95 **Code: BK 301**

Myst: The Official Strategy Guide

Rick Barba and Rusel DeMaria

Feeling a bit MYSTified? Ready to discover all the secrets to this MYSTerious island? This is the ultimate guide to answer all your questions about Myst Island and the Ages of Myst. This guide will provide you with a complete fictionalized walkthrough of the game, detailed examinations of the puzzles and the reasoning behind them, and "Quick and Dirty" solutions for those of you in a hurry.

Code: BK 302 Price: $19.95



NBA Jam Strategy Guide

Editors of GamePro Magazine

Boomshakalaka! Covering the SNES, Genesis, Game Gear, Original Arcade, and the brand new powerhouse Tournament Edition, this strategy guide provides you with everything you need to know to beat all 27 teams. You will get a complete breakdown of Speed, Dunk, Three Point, and Defense capabilities for all 54 players in the 27 NBA teams. You also get a comprehensive Coaching Tips section and game-winning strategies in the Game Strategies section AND you will also get the lowdown on tons of hidden characters in the home and arcade versions. Get all the moves…get NBA Jam!

Price: $9.95 **Code: NBA**

Special Products

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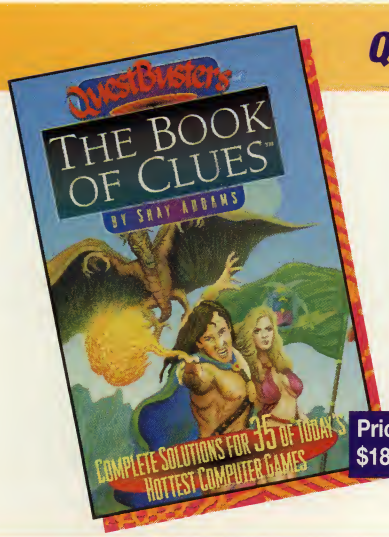

Price: $18.95

Shay Addams

Get expert advice from the experts! This book features complete step-by-step instructions on how to solve the quest for 35 of the hottest computer games out there. Includes complete solutions for: Alone in the Dark, Betrayal at Krondor, Freddy Pharkas, Might & Magic: Darkside of Xeen, Realms of Arkania, Space Quest, Ultima Underworld II, Ultima VII: Serpent Isle, and many more!

Code: BK 303

Questbusters: Keys to the Kingdom

Shay Addams

Another locked door? Unlock them all with this guide that is full of complete solutions that show you how to solve every puzzle. Includes walkthroughs for: Dark Sun: Shattered Lands, Dracula Unleashed, Gabriel Knight: Sins of the Fathers, Police Quest IV: Open Season, Quest for Glory IV, Return to Zork, Sam and Max, The 7th Guest, Star Trek: Judgment Rites, and many more!

Code: BK 304 Price: $18.95

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EE9/94

Tube Man

Keith Ferrell

Golden Age?

Interactive entertainment seems destined to become the next television, with all the compromises implied by a mass medium. We, the interactive audience, can look forward to being served only dishes designed to corporate specifications and lowest common denominators.

Fortunately, we may be able to avoid this unsavory fate. By seeing ourselves as an audience rather than a market, we can learn some lessons about the possibilities that lie ahead by looking backward. Looking, in fact, to the early days of television and one of that medium's grand pioneers, Sylvester "Pat" Weaver, Jr.

Weaver is a fascinating man who's just published a fascinating book: *The Best Seat in the House: The Golden Years of Radio and Television* (1994; Knopf; $24). Father of actress Sigourney, Weaver is also the father of many aspects of television still with us today. "Today," in fact, as in Bryant and Katie's show, was Weaver's idea, as was "Tonight" and countless other approaches to televised entertainment and information. Just don't blame their current incarnations on him.

Weaver, you see, may have sired these concepts, but he didn't rear them. Indeed, his vision for television was far different from what has emerged. Watching during TV's Golden Age, he saw the medium as the great leveler—an opportunity for everyman to have a seat at the opera, to experience great drama, to lend an ear to discourse on the great issues of the day. Not that his vision was dry or stuffy or snobbishly highbrow. There was, he felt, no substitute for comedy in terms of building an audience, and even news, cultural, and educational programs would have to carry more than a modicum of showmanship.

But Weaver's vision was also pointed: No commitment to quality, whether in high culture or middlebrow comedy, could stand long unless the power of the advertisers was held in check.

It wasn't, of course, and the rest is, as they say, television history. Turn on your set, even to the cultural channels, and you instantly see what Weaver was afraid of. Everything's for sale, and every set's a salesman. Reading Weaver's book, one senses a dreary inevitability about this state of affairs, but also a sweet breath of that wonderful world of what-might-have-been.

Maybe it still can be.

Now there's a new digital medium, our medium, at roughly the same period in its history as television was in the mid-fifties. And we, the audience, hold, I believe, far more power to shape its nature and destiny than our parents did in front of their black-and-white Philcos.

PHOTOGRAPH COURTESY OF SHOOTING STAR

The new interactive media remain young enough, and our relationship to them intimate enough, that we can shape the future rather than simply accepting a future that's been shaped for us. Unlike the television audience—57 channels, 500 channels, and nothing on, so settle for the least-boring program—we don't have to settle.

It won't be easy. There's a definite best-seller mentality developing in the distribution channel, and that's not too different, in potential effect, from the growth of advertiser influence on television. Both push creativity toward the center, excluding marginal voices, talents, and opinions.

But unlike television, interactive digital media promises access to more than one distribution channel. We don't have to restrict ourselves to what a network deigns to give us—we can go out and find what we want. We're not restricted to our couches, accepting what's delivered to us. We can look beyond the best-seller racks.

Cruise the net in search of programs that promise more than mass-produced diversion. Make your voice heard on bulletin boards, at user groups, and, yes, in the marketplace. Ask for what *you* want, and if you don't get it, demand it.

Our relationship to interactive platforms and programs is far more intimate than television ever can be. Every disc or cartridge is, in effect, a channel unto itself, with the advantage that its producers don't have to support a huge broadcast or cable distribution system. There is plenty of room for innovation and adventurous design, but we—the early audience—are the ones who have to make it clear that innovation and adventure are what we want.

Can we, the interactive entertainment audience, create an egalitarian medium? One that gives everyone the sorts of entertainment, education, and information that he or she most enjoys, not just what sells the most soap? Maybe so. But we have to start now, speaking louder than the television audience ever spoke.

And when we do, let's tip our hats to Sylvester Weaver, who knew what television could be, and isn't. Our Golden Age, you see, need not end.

Keith Ferrell is editor of OMNI, *editorial director of* Compute, *and science and technology editor of* Penthouse, *each of which covers the interactive revolution in its own way.*

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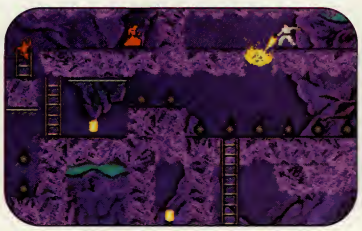

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Game On

Rusel DeMaria

Battle of the Sexes

I've seen a man fall in love with a woman because she plays computer games.

Actually, I've seen it happen more than once. I've watched two people meet in a crowded room, start talking, and then, wham! She says, "Yeah, I like to whip guys' asses with Chun Li," or, "I like using the chain saw in Doom." The guy's eyes go goofy, and the next thing you know, he's sending her dozens of roses.

Is this the romantic lure of the nineties? Computer games? (For more on this issue, see "Why Women Don't Play Computer Games," on page 56.)

Women, take note! Or not.

Male gamers have been decrying the dearth of women computer-game players for years. Many a man has obsessed over games only to suffer the wrath or alienation of his partner. I've even heard a rumor that Steven Spielberg's marriage to actress Amy Irving broke up because he was so obsessive about playing computer games. OK, it's just a rumor, but if it happens to ordinary folks, why not Spielberg?

I've had more than my share of similar troubles—and I play computer games for a living. There's nothing more ridiculous than having someone question why you're playing a game when you're getting paid to do it.

So what's the big problem? Why are game-playing women so hard to find? I think the question is backward. What we should really be asking is, "Why is it so hard to find games women like to play?"

I have my own ideas about games that women would like, but so far nobody has created them. That's probably about to change. Lots of people these days are trying to counter the stereotypes and create games for women. And both game companies and academics are doing a lot of research. (For an idea of the results, see "He Said, She Said," below, which distills information from a number of sources presented at this year's Game Developers Conference.) As a man who plays games, I've found it interesting to learn about myself from this research, and about how I differ from women.

Of course, I don't take it all literally. I know a few women who play games with as much gusto as any man. In my own office, Mychelle can challenge any of the guys to a match at NBA Jam, and she's the one who's finished The Horde about six times on the 3DO. She's not looking for storytelling or noncompetitive interaction. She's looking to kick butt.

But the information being gathered about who plays what offers some understanding of why if a guy wants to spend his Saturday night playing Rebel Assault, he's probably going to do it without the benefit of female companionship. Computer game makers, meanwhile, hope to use the research to create titles that will appeal to females.

In general, though, I don't really like the idea of "girl games" as opposed to "boy games." I like to think about unisex gaming—games that everyone can enjoy. We're seeing the beginning of this with the new breed of games on CD-ROM—titles like Myst and The 7th Guest that appeal to both men and women. Upcoming games featuring full-motion video, real voices, real actors, adventure, good story interaction, and a touch of action will go even farther to break down the gender barriers.

Should any of this matter to us males who make up the majority of today's hard-core gamers? Some guys feel threatened and think that bringing women into the picture is not a good thing. They worry that women will dilute the adrenaline rush and throw open the door to what had been a private club.

I think the more, the merrier. I mean, the bigger the game market gets, the more games we get, the more fun we have. And the more understanding our girlfriends and wives will be about it all. Of course, there is the danger that we'll end up fixing dinner while they play games. Hmm.

Rusel DeMaria is the author of more than 25 computer and video game strategy books.

He Said, She Said

Men seem to like...

- Repeating actions to get to the next level
- Action, like shooting, running, jumping
- Solving puzzles to overcome specific obstacles
- Measuring their skills
- Turning off the sound (it's distracting)
- The challenge of negative comments from the game
- Lots of definite and rigid rules
- Winning through competition and individual prowess
- Playing until someone wins

Women seem to like...

- Solving problems among characters
- Storytelling and characters
- Picking up clues and learning from characters in the game to get ahead
- Getting credit for trying
- Using music to add to the fun
- Encouragement and support from the game
- Fewer, simpler, and even variable rules
- Winning through cooperation
- Quitting when they get bored

ILLUSTRATION BY ANTHONY LUKBAN

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No, not the NFL. We check out the electronic

Pigskin

entertainers battling to make All-Pro.

Preview

football season is here! Mighty warriors once again stride across hash-marked sod to battle for glory, honor, and victory.

OK, OK, so maybe these days it's more like overpaid whiny warriors striding across Astroturf in climate-controlled domes to battle for Nike promotions—it's still football.

Trouble is, there isn't enough of it. Basketball and baseball fans can catch a game on the tube just about every night. Football fans have to go cold turkey from Monday night until Sunday afternoon, with an occasional Thursday-night fix. And those old NFL Films highlight reels get a little stale about the eighth week of the season.

Fortunately, techno-savvy computer gamers can get their fill of gridiron action any time they want.

Football simulations have been hot properties on every gaming platform since the dawn of, well, gaming. After all, football is a game of stats and ratings—the very stuff computers were designed to deal with. Thanks to faster processors and better graphics, today's PC and set-top games are better than ever, with more options, intelligence, and enhanced bone-crushing action than you ever thought you could enjoy without risking a knee injury.

But with more sophistication comes increasing specialization. Different football games concentrate on different aspects of the game. Simulations range from text-based coaching-fests that worship the idol of statistical accuracy all the way to arcade-action graphical eye pleasers in which a quick thumb is better than an All-Pro running back (sorry, Emmitt). Because one football fanatic's dream game may be another's nightmare, it pays to know the contenders' strengths and weaknesses before you do an end run to the cash register.

To make it easier, we've done some scouting for you. Our three All-Pro picks will lead you to the best in football-sim action. Each game is a proven winner in its class: action, strategy, or a combination of both. Pick the one that suits your personality, then load up your electronic gridiron, strut past the cheerleaders, and kick some butt!

By Christopher Lindquist

PHOTOGRAPH BY MARK TROUSDALE

Action MVP

John Madden Football for 3DO

There's nothing like a football game to make a fan feel warm all over—unless you happen to be sitting in Chicago's Soldier Field during a play-off game, in which case you just feel numb all over. John Madden Football for 3DO CD-based game platform will keep you toasty all year round with its generous use of 3DO's hot graphics and sound. This game looks great, plays great, and gets even better when you challenge a friend instead of the machine.

John's always ready to make a comment.

Madden's scouting report lets you check the matchups.

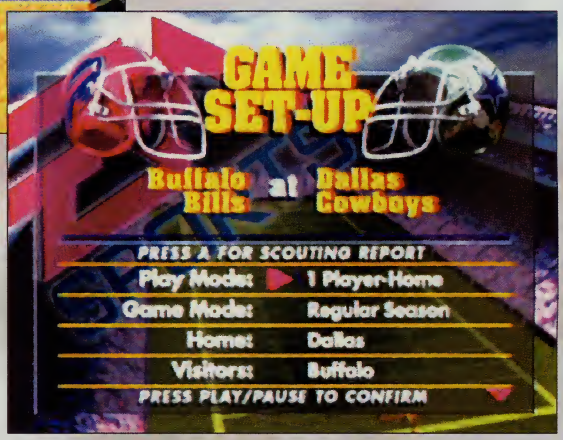
Calling Madden a football simulation isn't really fair to sims—this title is more like an arcade game. Madden for 3DO is built for people who just want to enjoy themselves playing football, not spend hours designing trick plays and tweaking coaching profiles. If pure fun is the goal, Madden for 3DO is the game.

Cleverly animated backs and linemen rumble around the screen to the sounds of a roaring crowd and crunching tackles. Video and audio commentary by the Ace Hardware man himself add to the Monday Night feel, even if he does make the occasional un-Madden-like mistake—such as claiming a receiver was wide open when he was in double coverage.

Choose whether you want to just watch the system at work, play against it, or butt helmets with another human being (the best choice). Beginners can start out with preseason play, in which passes are easier to catch and defenders don't hit so hard. Regular season games up the difficulty level, if only slightly. If you think you're ready to go to the Super Bowl, start up a play-off series to fight for your ring.

He's wide open!

Then it's time to pick a team. Madden for 3DO offers all 28 NFL squads, plus two All-Madden and eight Championship teams, including the powerful '85 Chicago Bears and the undefeated '72 Miami Dolphins. Finally, set up weather conditions (sunny to snow), field type (artificial turf or real grass, domed or open), and quarter length (5, 10, or 15 minutes), and you're ready to rock.



It's time to relive the Super Bowl.

Game play is simple. On offense, you choose a lineup, a formation, and a play. Once the players are in place, you tap the C button on the controller to snap the ball. Then you can either take control of the player with the ball or let the computer run the play. On defense you choose your lineup; decide whether you want to attack, read, or cover; and assign a play. The B button lets you choose which player to control, or you can let the computer handle the rough stuff for you.

Ironically, the very things that make Madden fun to play may turn off football-

Beat The Coach

As in most football sims, you can often confuse Madden's defense by using rushing plays in a passing situation and vice versa.

Put some practice into punting away from Madden's punt returners. They don't follow the ball well, and often the pigskin will go past them and bounce for another dozen yards or so. This, combined with the computer returner's incessant desire to run the ball out of the end zone, can pin your opponent in truly awful field position.

Defensive and offensive players both have a better chance of catching the football if you hit the B button just before the pass arrives.

Mismatches always work. The 3DO's artificial intelligence won't compensate for, say, a fast receiver being covered by a slow safety. Check the scouting report before a game to identify key mismatches, then use plays that take advantage of them.

Fumbles are fun, if they happen to the other guy. Line up your defender for a head-on collision with the ball carrier, then hit the A button to try and pop the ball loose.

Make things more interesting against less experienced human opponents by giving them a top-notch squad such as the Championship teams, while you plug along with the likes of Tampa Bay or New England. —CL

sim purists. Don't look for a play editor—you're stuck with a predefined set of 86 offensive and 70 defensive plays. Your players are invulnerable, too, so details like injuries and fatigue are missing in action.

Oh baby, it's cold outside!

And penalties are more rare than in the real game.

Perhaps the worst problem for Xs-and-Os eggheads, though, is that Madden for 3DO's football strategy know-how is about equal to a Pop Warner water boy's. Punt returners almost always return the kick no matter how deep the punter puts it in the end zone or how close the defenders are. There's no such thing as a two-minute drill, either. Your computer opponent may be down by six points with 30 seconds remaining and no time-outs, and still run a short-yardage dive up the middle.

But while Madden's artificial intelligence needs some special education, people who just want to throw a pixelated pigskin around the stadium will have a blast. Play against another person and you won't have to worry about the AI anyhow. Just find a friend, warm up your thumbs, and enjoy. (Electronic Arts; 800-245-4525; 3DO, $59.95)

Up the middle for a big gain.

Play to Win

It pays to keep an eye on your guys. Tired players automatically get benched in FPS: Football Pro's Basic and Standard play-call modes, and if you're not careful, your star running back might get pulled during your two-minute drill. Watching for fatigue is even more important in Advanced mode, in which the game will let you run players straight into the hospital if you don't give them some rest.

You have to be a serious manager to play in an FPS: Football Pro career league. Player stats decrease over time, and if you aren't paying attention, that once-great safety might get burned so often he earns the nickname Toast. Draft carefully, give rookies some playing time in training camp to develop their skills, and don't be afraid to do some judicious trading.

If the going's too tough, check out what version of the program you have. If it's release 1.0, contact Dynamix for the latest patch or download it from an online service. The patch makes passes easier to catch and running backs harder to catch. Other small changes include keeping players from retiring too early.

If you don't mind bending the rules, trade away all your wide receivers and halfbacks for tight ends and fullbacks. FPS: Football Pro will let you change their positions, and the newly appointed receivers and runners will generally perform better than their wimpier predecessors.

–CL

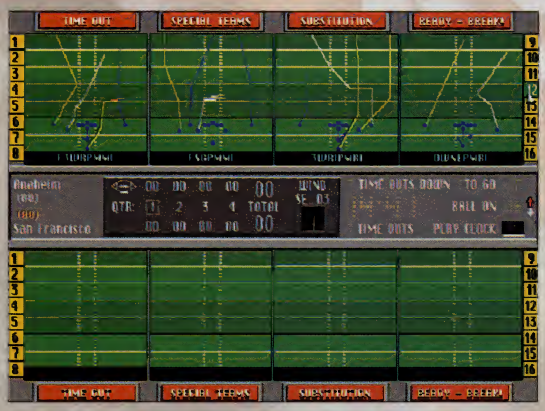
All-Around Athlete

Front Page Sports: Football Pro

Sometimes a game comes along that just puts the competition to shame. Dynamix's Front Page Sports: Football did just that when it hit the field in 1992. This year's Pro edition adds even more muscle, and the competition is still rushing to catch up.

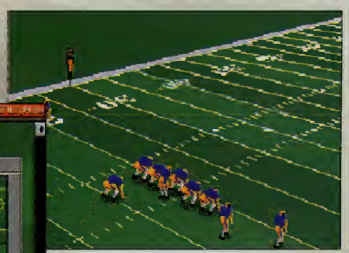
FPS: Football Pro is an amazing combination of graphics, action, and strategy that has spawned an entire industry of its own. Utilities, stats packages, and whole football leagues to be used with it have appeared in FPS: Football Pro's wake.

The key to FPS: Football Pro's success is flexibility. Beginners can get into the action right away by running both play-calling and action sequences in Basic mode. Here, plays are simple phrases such as "Pass Short Left" or "Run Middle," the computer automatically substitutes for tired or injured players, and all you have to do is press a key to snap the ball. The animated players spin, slide, flip, and even spike when they score.



The right (or wrong) play is only a mouse click away.

But unlike some other football sims, FPS: Football Pro lets more advanced



Football Pro lets you design your own plays and coaching style, then lets you try them out on the field.

Football Pro Add-Ons

You know a game is hot when people don't just play it, they enhance it. By that standard, FPS: Football Pro is burning.

Shortly after it came out, fans began writing software utilities to modify player stats, compile and produce league data reports, and update player info to reflect, the real football world.

If you're hooked into an online service such as CompuServe or America Online, you can find a flood of add-ons, including lineups for famous historical teams, advanced coaching profiles, and of course, the leagues.

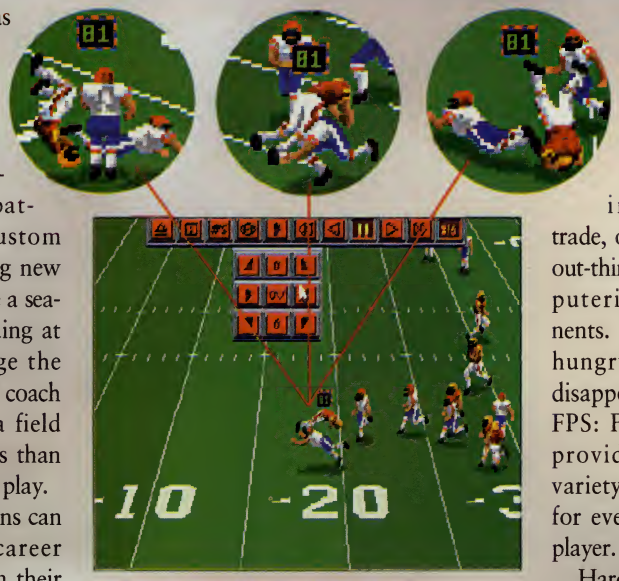
Serious players have banded together on online services such as CompuServe, America Online, GEnie, and others to create leagues that assign teams to human participants. The players then devise playbooks and coaching profiles. The leagues then pit the teams against one another according to a regular schedule. Players can tweak their coaching profiles between games and even trade players or acquire free agents. Championship winners receive bragging rights and maybe even some free online time.

To find a league or FPS: Football Pro utilities on America Online, type the keyword "Grandstand"; on CompuServe enter "Go Sports." Usenet users should look for comp.sys.ibm.pc.games.action. GEnie members should type "sports." And on Delphi type "Go GameSig." —*CL*

Get the detailed description after the play.

players take as much control as they can handle, right down to diagramming pass patterns in custom plays, drafting new players before a season, or deciding at what yardage the computerized coach will go for a field goal with less than 30 seconds to play.

Strategy fans can start up a career league, design their own playbook from scratch, keep the action on Basic, and spend months trying to outtrade, out-draft, and out-think their computerized opponents. The number-hungry won't be disappointed either. FPS: Football Pro provides a huge variety of statistics for every team and player.



Instant replay lets you view from all the angles.

Hard-core players tired of beating up on the computer often seek human opponents. While FPS: Football Pro doesn't offer modem play or a true two-player action mode, it does allow you to create coaching profiles. Two human players can design coaching profiles to suit their personalities, then send the teams out on the field for a computer-controlled game based on the human coaches' preferences. If you're up by a touchdown late in the fourth, do you play it safe and give the ball to your sure-handed fullback, or would you rather air it out to your speedy wide receiver and try to put the game out of reach?

Whatever your gaming inclination, from action to strategy, you're bound to find something worthwhile in FPS: Football Pro. (Dynamix; 800-757-7707; DOS, $79.95)

Wait 'Til Next Week

Dynamix plans to update FPS: Football Pro in October. The new game, FPS: Football Pro '95, will have the ratings and records for NFL teams and players from the '93–'94 season. It is also expected to implement several of the new NFL rule changes, including two-point conversions and kickoffs from the 30-yard line.

Coach of the Year
APBA Pro Football Game Version 5.0

Maybe you've never really wanted to get yourself beaten up on the field, but you're sure you could call the plays better than half the coaches in the NFL. There are sims that cater to the Monday-morning head coach. These strategy-based sims may put action fans to sleep, but the intellectual side of football has an excitement all its own. It's just you against the computer or another person, with nothing but your wits to help you win.

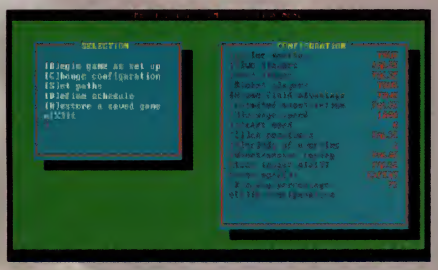
APBA Pro Football Game Version 5.0 is the best strategy game of this type on the

Wait 'Til Next Week, Part 2

APBA Pro Football Game Version 6.0 is scheduled to ship this month. This latest version will include the schedule and ratings for players and teams in the '93–'94 season and add the option of two-point conversions. You'll also get improved robot coaches, including a "classic" simulation designed to run a team in the manner popular in the 50s and 60s. Even better, the company will cut the price of the game by $10 to $39.95.

market. This kissing cousin of the APBA board game isn't much to look at—it uses minimal graphics to depict the field and ball position. But it makes up for the shortcoming with great text-based play-by-play and an accurate statistical model using the stats of real NFL players. The lack of graphical depth also means that the program runs well on almost any PC, even ancient 8088s with monochrome monitors.

APBA Pro Football's emphasis is on mimicking reality. Run it through a robot-controlled season using the stats and schedule for real teams, and you'll see standings that closely mirror that year's historical numbers. Game scores don't fly into the stratosphere often either, unlike in some action games, in which a fast thumb or a feeble opponent can produce basketball-like scores.



APBA Pro Football's startup screen lets you control the options.

The play-by play captures the game's excitement.

The Bills lose even a simulated Super Bowl.

Play by yourself against the computer or against another person. Don't worry about your hand-eye coordination, either. APBA Pro Football leaves the playing to the players. Everything else—selecting plays, substituting for injured players, choosing lineups—is up to you. After you choose the play, the computer runs the down and displays a window of play-by-play text. Watching words scroll by may not be the same as listening to John Madden's frantic booming, but the descriptions are involving—you can almost see the players moving up and down the field.

Play Smart

Start in Pop Warner, go to Notre Dame, be an assistant to Joe Walsh for a couple of years, and lead the Patriots to a Super Bowl victory. Then you'll be ready for APBA Pro Football.

If you want to get more involved in managing your league, APBA Pro Football provides the tools, including a Commissioner utility to create teams, leagues, and drafts, as well as player and schedule editors that let you design your own dream team or season. The flexibility is nice, but the interface isn't. Navigating the game and its utilities requires some careful reading of the rather poorly designed manual, so if you're looking for a load-and-go football game, look elsewhere. But if realism unhindered by distracting graphics and reflex-oriented thumb twitching is what you seek, you'll find it here. (APBA Game Co.; 800-334-2722; DOS, $49.95)

But Wait! There's More!

Our All-Pro games are tough, but if you want to tackle some other football sims, give these contenders a tryout.

MicroLeague Football 2

This strategy game combines decent graphics with a few black-and-white video highlights. Find it bundled in The Propak. (MicroLeague Interactive Software; 800-334-6572; DOS, $29.95)

NFL Coaches Club Football

Action and strategy come together in an enjoyable game. It lacks some of the depth of Front Page Sports: Football Pro, though. (MicroProse; 800-879-7529; DOS; $44.95)

NFL Pro League Football

Strategy and graphics plus modem play make Pro League a legitimate contender. (Micro Sports; 800-937-7737; DOS, $ 69.95)

Tom Landry Strategy Football

Great for strategy fans who want something to look at. It wraps limited graphics around a strategy-sim core. (Merit Software, 800-238-4277; DOS; $14.95)

Unnecessary Roughness

Follows in the vein of Front Page Sports: Football Pro with a combination of graphical arcade action and strategy. (Accolade; 800-245-7744; DOS, $59.95)

NFL '95

This new sim provides one- or two-player action with arcade or coaching options. Rules have been updated for the '95 season. (Gametek; 800-426-3835; Windows, $49.99)

Joe Montana's NFL Football

Sega CD users may want to check this out. The graphics shine, but the game play is only fair. (Sega of America; 800-872-7342; Sega CD, $59.99)

All-Pro Video Football

This "football coaching simulation" uses digitized video of real Arena League football players to give a Monday Night Football feel on either PCs or Macintoshes. (Accolade; 800-245-7744; CD for DOS/Mac, $69.95)

Football is not the domain of floppy disk and CD-ROM alone. Football video games abound on the Sega Genesis and Super Nintendo as well as on computers and 3DO. These cartridge-based contenders score the highest.

John Madden Football '93 & '94

Unlike its 3DO cousin, Madden on Sega and Super Nintendo is a strategy-oriented game with lots of plays, realistic action, and Big John's own commentary. (Electronic Arts; 800-245-4525; Genesis and Super Nintendo, $59.95)

Super High Impact Football

As much Mortal Kombat as it is football: Players taunt each other, coaches beat you up if you make a stupid play, and bench-clearing brawls are the norm. (Acclaim; 516-624-2884; Super Nintendo, approximate street price $39.95)

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(Sorry. No Blimp.)

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NFL™

BY CHRISTOPHER LINDQUIST

Intel Pentium PCs and Apple's Power Macs slug it out to be the most entertaining computer you can buy.

Your Next Game Platform?

You know you need a new computer. You want to enjoy all the latest games and multimedia titles, and you don't want to wait. You want the fastest, most powerful, most versatile machine around—but you don't want to mortgage the house to get it.

With new computers based on Intel's Pentium chip competing with Apple's new Power Macs built around the PowerPC processor, you've got a tough choice ahead of you. Sure, Pentium machines flawlessly run the vast library of DOS- and Windows-based titles. They're clearly faster than 386 and 486 PCs, and they speed up the software you already own.

On the other hand, Power Macs are just as fast as—if not faster than—Pentiums. They work with virtually all of today's Macintosh software, and you can make them run many DOS and Windows programs, too. Better yet, there's a whole new breed of Power Mac–specific titles that really fly on these systems.

The competition is rapidly driving down prices for both kinds of computers. You can get a low-end multimedia 60MHz Pentium PC for less than $3,000, and even faster 90MHz models like the Dell Dimension XPS P90 we reviewed begin at around $3,400.

As for the Apples, an entry-level Power Mac 6100 starts at about $2,000 complete, while the hot 7100 we checked out costs about $3,700.

With any of these babies, you'll get more fluid animation in your games and multimedia titles, bigger and smoother full-motion video windows, faster responses from computer opponents, and noticeable improvements in overall performance.

Even more importantly, these are the machines of the future. It won't be long before the best games and most innovative multimedia adventures will require Pentium or Power Mac performance to work their magic.

PHOTOGRAPHS BY PAUL MORRELL

Pentium

Dell Dimension XPS P90

- 16MB RAM
- 540MB hard drive
- Multimedia upgrade (double-speed CD-ROM drive, Creative Labs Sound Blaster 16 sound card, Peavey speakers)
- #9GXE video card
- 15-inch SVGA monitor
- $3,395

PENTIUM, PENTIUM, PENTIUM. Everywhere you look, Intel is pushing Pentiums. First it was the 60MHz and 66MHz models, but now 90MHz and even 100MHz systems are becoming reasonable options for high-end entertainment platforms.

Unlike a Power Mac, a Pentium box will speed up all of your games and multimedia titles immediately—making them run two, three, even ten times as fast as they did on 386- or 486-based machines.

ULTRA COMPATIBLE. Pentium was designed from the get-go to run everything its predecessors could. That's great if you're trying to run older titles on a Pentium system. Unfortunately, it also means multimedia developers don't have much incentive to create games and titles that take full advantage of Pentium-specific high-performance capabilities—yet.

SMOOTHER VIDEO. Pentiums will speed three-dimensional graphics for more realistic virtual worlds. And Intel promises that the Pentium—working with the company's indeo video scheme—can provide enough horsepower to play TV-quality full-screen video from a CD-ROM, without any additional hardware.

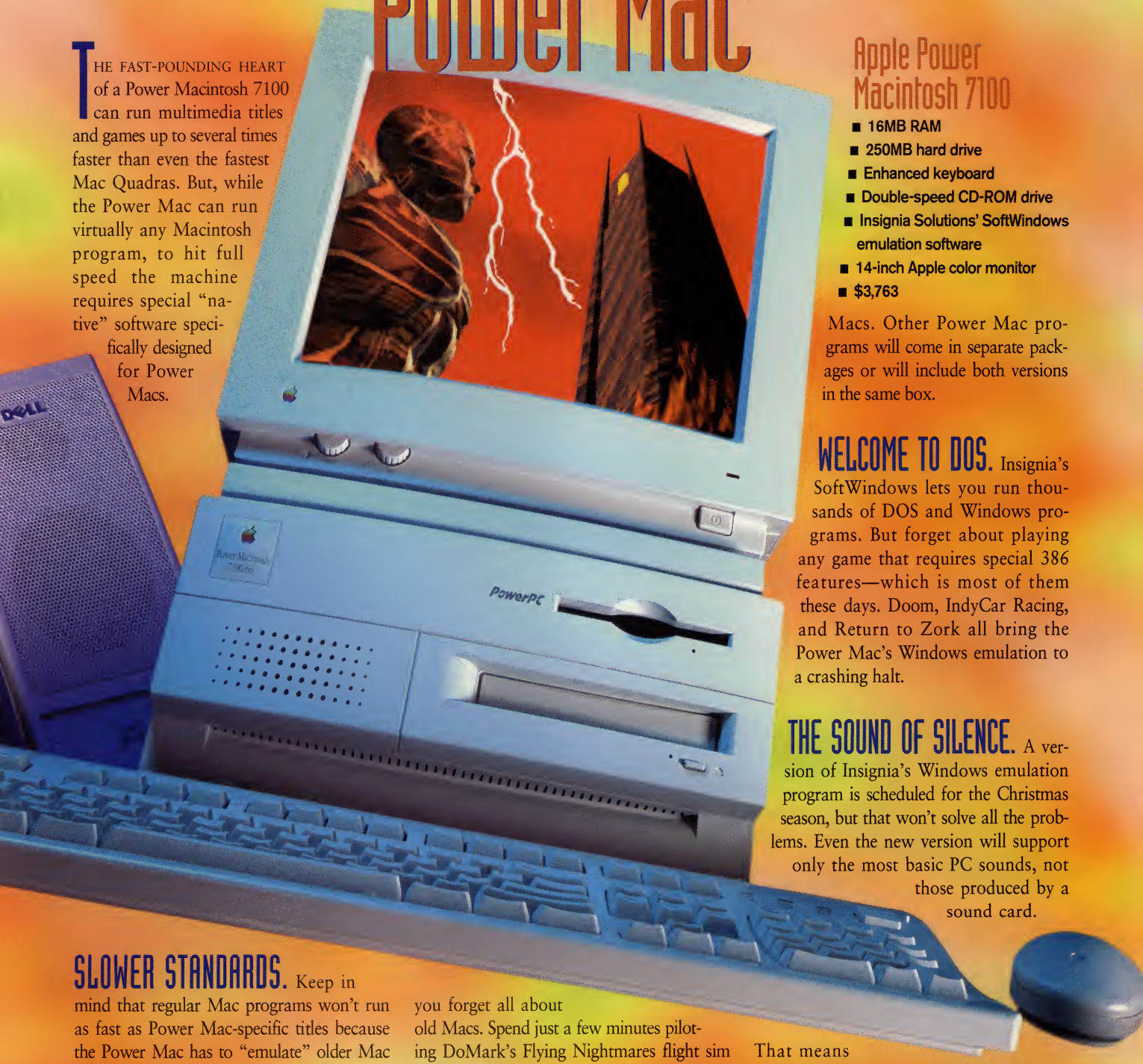
FASTER GAMES. The bottom line: Your games will look and play better. We compared computer-punishing titles like Origin's Strike Commander running on a 66MHz 486 and a 90MHz Pentium, and the "you are there" factor went up a notch. Graphic motion was smoother and transitions moved faster.

SWEET HOME, CHICAGO. Pentium-based PCs will be ready to run Chicago, the code name for Microsoft's next version of Windows, when it ships next year. Demos of the new operating system indicate the Pentium may eventually challenge the Mac as the hippest machine on the block.

486 KILLER. PC upgraders should definitely consider a Pentium system. Game and multimedia makers always push the limits of technology, and if you want to be able to sample their cutting-edge wares, you'll need a Pentium. It's as simple as that.

Power Mac

THE FAST-POUNDING HEART of a Power Macintosh 7100 can run multimedia titles and games up to several times faster than even the fastest Mac Quadras. But, while the Power Mac can run virtually any Macintosh program, to hit full speed the machine requires special "native" software specifically designed for Power Macs.



Apple Power Macintosh 7100

- 16MB RAM
- 250MB hard drive
- Enhanced keyboard
- Double-speed CD-ROM drive
- Insignia Solutions' SoftWindows emulation software
- 14-inch Apple color monitor
- $3,763

SLOWER STANDARDS. Keep in mind that regular Mac programs won't run as fast as Power Mac-specific titles because the Power Mac has to "emulate" older Mac boxes to run them. Apple says you can expect Quadra-like speeds for most current Macintosh programs. Our tests with several Mac entertainment titles, including Jump Raven and The Madness of Roland, bore this out. Things may not go perfectly (for example, Jump Raven's sound didn't work), but we didn't run into any deadly conflicts.

CAN'T-MISS IMPROVEMENTS. Native-mode Power Mac titles, though, will make you forget all about old Macs. Spend just a few minutes piloting DoMark's Flying Nightmares flight sim for the Power Mac, and you'll immediately understand the new machine's appeal. The Power Mac will also improve video performance, especially with titles that use Apple's new QuickTime 2.0 video standard. Apple claims near-TV performance without requiring any extra hardware.

FAT APPS. Some Power Mac programs use a so-called "fat binary" that is optimized for both older Macs and the new Power Macs. Other Power Mac programs will come in separate packages or will include both versions in the same box.

WELCOME TO DOS. Insignia's SoftWindows lets you run thousands of DOS and Windows programs. But forget about playing any game that requires special 386 features—which is most of them these days. Doom, IndyCar Racing, and Return to Zork all bring the Power Mac's Windows emulation to a crashing halt.

THE SOUND OF SILENCE. A version of Insignia's Windows emulation program is scheduled for the Christmas season, but that won't solve all the problems. Even the new version will support only the most basic PC sounds, not those produced by a sound card. That means silent games and mute multimedia. Insignia says it is investigating improved sound support but won't promise anything.

FOR MAC LOVERS ONLY. If you love Macs, you'll love Power Macs even more. Just don't expect the Power Mac to give you access to all Windows and DOS games and multimedia titles. If you really want to run DOS and Windows programs, do yourself a favor and stick with a PC.

Wanna Wait?

You say you aren't ready to buy a Pentium or Power Mac just yet? That's OK—prices will only get lower, and there's a lot you can do to speed older PCs and Macs. After all, plenty of performance problems are due to inadequate memory or slow hard disks, video, and CD-ROM systems, not just outdated chips.

- Adding memory is a great performance booster. Macs and PCs speed up considerably with 8MB, 12MB, or 16MB of RAM. Buy as much as you can afford.
- If Windows titles stall on your PC, a graphics accelerator card is the smartest investment you can make. These are Super VGA boards with special circuitry for speeding up frequently used Windows operations. (For more information, see "Graphically Speaking," July 1994, page 114 and "Get Great Graphics," August 1994, page 100.)
- A lot of today's titles lean heavily on the hard disk. If you still have the hard drive that came with your system four years ago, do yourself a favor and upgrade. We recommend an IDE hard disk with an access time of 16 milliseconds or less. It'll make a world of difference.
- The fastest processor in the galaxy can't spin a CD-ROM any faster. If you don't already own a double- or triple-speed drive, get one now.

—Gina Smith

GOING NATIVE

The Power Mac currently has the lead in games written specifically for its heavyweight computing horsepower. Apple has been working hard at hitting up game makers to produce Power Mac titles, and the size of the title list shows that the effort is paying off.

Intel's list of Pentium games is still short by comparison, but expect it to bulk up as more and more of the fast machines hit consumer desktops. Game and multimedia developers love pushing the edge of technology, so the Pentium will be hard to resist for long.

Power Mac Games Due This Year:

- **Flying Nightmares:** A Harrier jump-jet flight sim. (DoMark; 800-695-4263; $49.95)
- **LinksPro Macintosh:** The Mac version of the popular golf game. (Access; 800-793-0073; $69.95)
- **Pathways into Darkness:** A Doom-like first-person shoot-'em-up. (Baker & Taylor; 800-775-4100; $69.99)
- **Marathon:** Sequel to Pathways into Darkness. (Baker & Taylor; 800-775-4100; $69.99)
- **Spaceway 2000:** Space-based arcade shooting game. (Cassady and Greene; 800-359-4920; $49.95)
- **Carriers at War II:** World War II naval-battle sim. (SSG; 904-469-8880; $49.95)
- **Solitaire Antics:** A collection of solitaire games enlivened with animated ants. (Masque; 800-765-4223; $24.99)
- **SimCity 2000:** The latest release of the top-selling city simulator. (Maxis; 800-336-2947; $69.95)
- **Return to Zork:** A new version of the classic adventure game, spiced with live-action video. (Activision; 800-477-3650; $79.95)
- **Wolfenstein 3-D:** This first-person shooter set the pre-Doom standard. (Apogee Software; 800-426-3123; $49.95)

LinksPro Mac takes a swing at the Power Mac.

Return to Zork (quickly) by way of a Power Mac.

Even urban renewal in SimCity 2000 gets a Power Mac boost.

Pentium Games Due This Year:

- **Flight Unlimited:** A non-combat flight simulator with ultra-high-resolution graphics. (Virgin Interactive Entertainment; 800-874-4607; $79.95)
- **Wing Commander III:** The newest installment in the classic space-sim saga. (Origin; 800-245-4525; street price approximately $65-$75)
- **NASCAR Racing:** Papyrus' latest entrant moves even faster on a Pentium. (Papyrus Design Group; 617-868-3103; not yet priced)

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A 3DO EXPERIENCE™

Because these blocks spell doom.
They're Gridders, and they make this the most unique adventure/puzzle game for 3DO.

REMEMBER YOUR FIRST SET OF BLOCKS?

Enter the mysterious Gridders Corporation factory, a true interactive 3D world you control. Manipulate the tumbling 3D automatons on 36 dangerous grid levels. Each with multiple solutions, each more challenging than the last. You must encounter deadly "technocutioners" and other agents of evil. Find and employ life-saving objects.

Listen to your bionic blood-hound Fidex.™ And learn how to use unusual devices. All in a relentless quest for a diabolical secret. CD quality music and dramatic animated sequences intensify this vivid, screen-popping 3D experience. Gridders is a test of guts and gray matter. One wrong move and you'll have to be scraped off the block with a shovel.

THIS MAY BE YOUR LAST.

3DO

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Cruising the Digital Newsstand

Online publications and CD-ROM magazines offer more—and less—than their paper predecessors.

By Daniel Tynan

I'm a magazine and newspaper junkie. I cruise newsstands late at night, nervously fingering the pages of *Harper's* and *Esquire*. My hands are permanently tattooed with ink from the *New York Times*. The floor of my apartment is a sea of magazines, with circulation cards fluttering through the air like dust motes, and the aroma of Obsession ads invading my dreams.

But now my obsession has expanded beyond newsprint and glossy covers. The objects of my affections have gone digital. Whether you're an info addict like me or someone who doesn't have *Time* for *US News*, you'll find that online and CD-ROM publications are changing the way you get your information.

I'm not just talking about news-wire services or techno-weenie computer journals. These days anyone with a modem can dial up electronic versions of mainstream publications—like *Time* on America Online, *US News & World Report* on CompuServe, or *Investor's Business Daily* on Prodigy. If you've got a multimedia PC you can take *Newsweek Interactive's* quarterly CD-ROM for a spin, or dive into the brand new disc-based publications that are changing the way people think about magazines.

That's because today's digital 'zines and newspapers are more than just electronic versions of the printed page—they're interactive. The best online publications let you communicate directly with the people who created them as well as with other readers. CD-ROM magazines, meanwhile, combine massive amounts of traditional text and photos with sound, animations, and video to add depth to the experience.

ILLUSTRATION BY ROBERT NEUBECKER

THE PAPERLESS NEWSPAPER

Virtually every time I dial up an online service some new electronic publication lands on my digital doorstep. From slick glossies like *Omni* and *National Geographic* to big-city newspapers like the *Atlanta Journal-Constitution* and *San Jose Mercury News*, more and more publications are growing hip to the online scene. Even big-time papers like the *Wall Street Journal* and *Washington Post* are preparing to go digital.

Why the sudden rush online? According to Link Resources in New York, the number of online subscribers in the U.S. will grow to nearly 15 million by 1997. Smart publications want to be there now, before the digital newsstand gets too crowded.

In some ways, these pioneering electronic pubs are better than their paper siblings. They give you more information, give it to you sooner, and make it easier to find. Every day the Mercury News Center features up to 300 stories that couldn't fit into the morning paper. Faithful readers of Time Online can dive into the latest issue on Sunday afternoon—a day before the printed version hits the streets—and receive daily updates on late-breaking events. Virtually all let you rummage through their archives and pull up a list of articles using simple word searches.

But their biggest advantage is interactivity. Many online periodicals provide message boards, where you can talk back to editors, writers, and other readers. Omni Online invites people to contribute content by uploading their own science fiction stories, novellas, and screenplays. Some, like *Time* and *The Atlantic Monthly*, go a step further and host live interview sessions—the online equivalent of a radio call-in show, where (a few) readers can schmooze with such notables as Vice President Al Gore or author Naomi Wolf. Readers who miss the session can check out transcripts of the event.

"Traditionally there has been a brick wall between readers and journalists, with a little chink called letters to the editor," notes

Good News/Bad News: Online Publications

GOOD NEWS

- Contains more information
- Get the news sooner
- Easier to find the articles you want
- Can talk directly to editors
- No annoying circulation cards or scented ads
- Can exchange messages with fascinating and/or famous people
- Good for the environment
- Minimal advertising

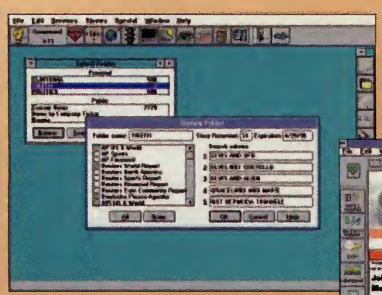
BAD NEWS

- Information overload
- Limited or nonexistent graphics
- Harder to browse at random
- Editors don't talk back
- Can't read it on the throne
- Can exchange messages with scary and/or psychotic people
- Bad for your eyes
- Stay tuned

News You Can Use

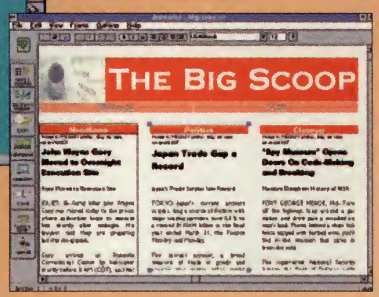
With terabytes of information zipping over today's electronic highways, it's easy to get run over. How do you sort through it all to find what you want? The answer may lie in software programs called "agents," which seek out information based on your preferences, then serve it up to you in a personalized newspaper.

Unfortunately, full-fledged agents do not yet exist, but a trio of products available now offer a hint of things to come.



CompuServe's Executive News Service continuously skims the electronic news wires for you.

CompuServe's Executive News Service (ENS) automatically scans Associated Press, United Press, and other online news wires, then saves the articles you want in a folder. You can create three folders, each containing up to five search criteria. For example, you can create a folder that looks for all stories containing the words "Elvis" and "UFOs," but excludes those containing "Bermuda Triangle." But if you don't choose your news sources and criteria carefully, you'll end up with a lot of stories you don't want. (CompuServe; 800-848-8990; $15 per hour)



PED Software's Journalist scoops up the day's news from Prodigy or CompuServe.

Internet heads can get the scoop using HeadsUp, a personalized newsletter service that scans more than 12,000 articles each day and delivers concise summaries of stories on the topics you've chosen. If you want the whole story, you need to call and order the full text to be sent to your e-mail address. (HeadsUp; 800-766-4224; $29.95 a month, plus $4.95 for each retrieval)

Finally, PED Software's Journalist logs on to Prodigy or CompuServe, downloads the day's news, and pours it into an electronic newspaper that looks just like the real thing. The Prodigy version lets you specify which sports teams, weather maps, and stock quotes you're interested in, but it won't filter news by subject. (For more on Journalist for Prodigy, see "Prodigy for Pennies," August 1994, page 24.)

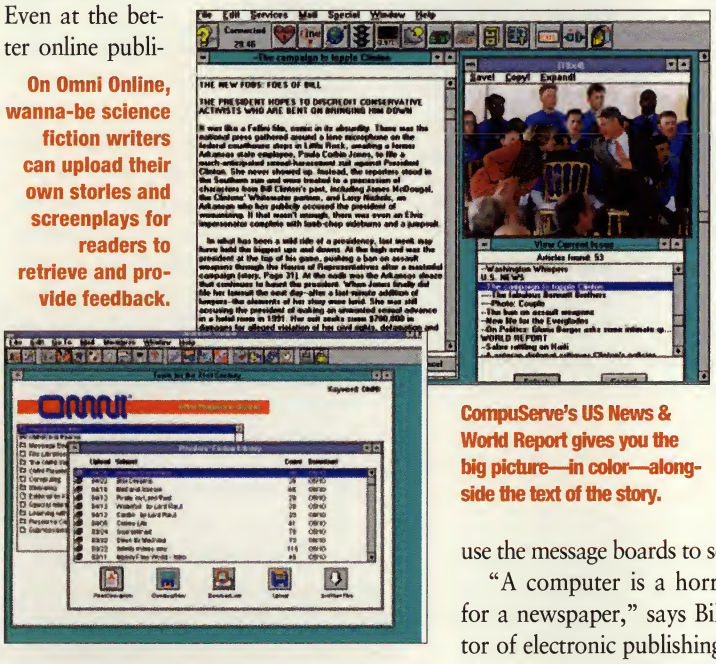
However, PED's CompuServe software will work with ENS to winnow stories based on content. The downside: Using Prodigy and a 2,400-bps modem, the program can take 45 minutes to create a single issue. Fortunately, you can set Journalist to log on while you sleep, then peruse the news over your morning cup of java. (PED Software; 800-548-2203; Windows; Prodigy edition, $79.95; CompuServe edition, $129.95)

–D. T.

Philip Elmer-DeWitt, a senior writer for *Time* in New York. "We've knocked that wall down."

LOOK MA, NO EDITORS

Unfortunately, there are many walls left to climb. The message boards at America Online's forums for *New Republic* and *Wired,* for example, contain plenty of reader input, but the editors are missing in action. Even at the better online publications such as *The Atlantic,* questions are usually handled by one or two modem jocks on staff or by sysops who may have little to do with the magazine's editorial content. Most writers and editors are simply too busy—or too technologically naive—to log on.



On Omni Online, wanna-be science fiction writers can upload their own stories and screenplays for readers to retrieve and provide feedback.

CompuServe's US News & World Report gives you the big picture—in color—alongside the text of the story.

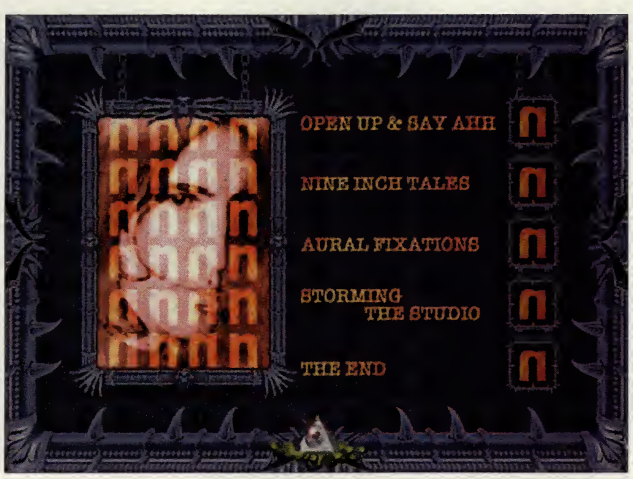
Online pubs are also hampered by basic flaws in computer technology. It's harder to read text on the screen than ink on paper. You can't roll up a digital magazine and take it to the beach. And because online publications are limited by the amount of data that can be stuffed down a phone line, they're boring to look at—screen after screen of plain text. Most online services let you download image files or even view "live" photographs as you scroll through the publication, but waiting for the picture to display is like watching paint dry. Using a 2,400-bps modem on CompuServe, it took me nine minutes to display a single photo from *US News & World Report.*

And when you're reading online, the meter's running—from $3.50 to $9.60 an hour, depending on the service.

Of course, you can download or print the articles and read them later, but it's still cheaper and easier to plunk down $3 for a paper copy at the local smoke shop.

In short, you'd have to be a rich masochist to read an entire issue online. Instead, most readers use the online pubs to search for specific information or use the message boards to sound off.

"A computer is a horrible replacement for a newspaper," says Bill Mitchell, director of electronic publishing for the *San Jose Mercury News.* "The Mercury Center is not designed as a replacement for the paper; it's an extension of the paper."



A cross between *Rolling Stone* and MTV, substance.digizine uses text, video, and music in its interviews.

CD MAGAZINES: ROM WITH A VIEW

Online publications are only half the story. A growing number of magazines are coming out on CD-ROM. Magazines on disc have a

substance.digizine

With its psychedelically inspired graphics and whimsical, nonlinear structure, this quarterly is less like a print magazine than any of the others here. Managing

Generation Xers will want to check out this music-filled digital mag.

editor Nick Roberts describes substance as "a magazine about info-culture and media criticism," but the demo disc seems mostly focused on music for the twentysomething crowd, featuring in-depth interviews with Trent Reznor of Nine Inch Nails and Brian Eno. If you don't know who these people are, substance is probably not for you. (Sony Imagesoft; 800-346-4080; CD for Windows, $29.95 per quarterly issue, $75 per year)

Medio

This little magazine has big plans. Each monthly issue includes more than 7,000 stories and 500 color photos

Medio packs thousands of stories and hundreds of photos on each monthly disc.

from the AP news wire, plus video clips, movie trailers, and some original material. Medio is divided into mini-magazines on news, entertainment, sports, and other

continued on page 52

topics. Such a description smacks of shovelware, though you may like having all this info in one handy package. The real question: Can Medio successfully process this volume of information every month? (Medio Multimedia; 800-788-3866; CD for Windows, $9.95 per monthly issue, $59.95 per year)

NautilusCD

Established in 1990, NautilusCD is the oldest and perhaps the oddest CD-ROM magazine around. The breadth of its content is dizzying—a single month's issue contained stories on flower arrangements,

Four-year-old NautilusCD is the granddaddy of CD-ROM magazines.

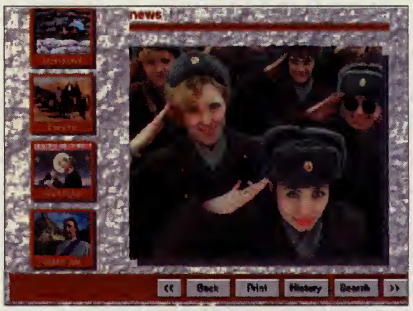
new-age music, video games, educational software, and workouts with Cathy Smith. But a complete lack of focus and smarmy writing dulls this disc's appeal. Future issues will focus more on helping users cope with multimedia technology—a good idea. (Metatec; 800-637-3472; CD for Windows/Mac, $6.95 per monthly issue, $79.95 per year)

Newsweek Interactive

Newsweek Interactive combines top-notch journalism with a pleasingly simple interface. Each quarterly disc contains three months' worth of the printed issue, hundreds of color photos and graphs, and multimedia versions of two cover stories, with audio and video created exclusively for the disc. Unfortunately, incredibly complex installation of the DOS-based program, opera-

continued on page 53

huge advantage over their online siblings: access to thousands of pages of formatted text and hundreds of color photos, not to mention sound and video. The result is a hybrid of a traditional print magazine and multimedia software.



Each Medio disc features a series of mini-magazines on news, entertainment, sports, and other topics, packed with thousands of articles, photographs, and video clips.

Here's how it works: Say you want to read an interview with your favorite rock star, Trent Reznor of Nine Inch Nails. You could pick up an issue of *Rolling Stone* or *Spin,* flip to the start of the Q&A, and read the text alongside a smattering of photos. Or you could pop a copy of substance.digizine into your CD-ROM drive, click on Reznor's photo in the disc's table of contents, and watch a video of the interview. Clicking more buttons lets you view the band's latest music video, sample cuts from the Nails' new CD, read capsule album reviews, or take a video tour of Reznor's Beverly Hills studio—a mix that makes substance a cross between *Rolling Stone* and MTV. Of course, you won't see photos by Annie Liebowitz or articles by William T. Vollmann (at least, not yet). But what upstart digital magazines like substance lack in high-priced talent they hope to make up for with depth and variety of information.

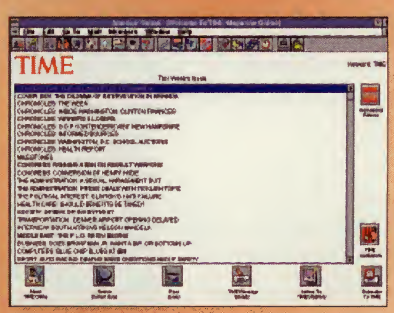
Multimedia publications are appealing because they "combine the functionality of a printed piece with the sensory aspect of TV news," says Kurt Dammier, executive vice president for NW Six Sigma, a Seattle-based publisher of CD-ROMs. Discs can also be cheaper to produce and distribute than paper because, unlike paper, their production costs remain constant whether you're publishing the equivalent of a 20-page newsletter or a 200-page magazine. With paper-based magazines, as the size of the magazine increases, so does the production cost. And with more than 8 million CD-ROM drives expected to be in place by year end, many publishers feel the time is ripe to launch digital publications.

"You'd have to be a complete psychopath to [launch] a general interest magazine in print right now," shudders Steve Podradchik, president of Medio Multimedia, a multimedia publisher in Redmond, Washington. "But now there's a brief window—maybe a year—in which you can do one on CD-ROM and succeed."

Hoping to prove his point, Podradchik publishes Medio Magazine, a general interest publication on disc—one of a handful of digital magazines created exclusively for the new medium. Because most of these early magazines are trying to appeal to the widest possible audience, many lack focus and a clear purpose. For example, the contents of just think from Ad-Hoc Technologies ranges from an article on auto-

America Online

CompuServe may have more publications on its roster, but no online service can match America Online's all-star magazine lineup. *Time, Omni,* and *The Atlantic Monthly* are among the mainstream titles that are available on America Online, thanks largely to its friendly interface. The quality of the online offerings varies. Some, like *Consumer Reports,* feature little more than the text of the printed version while others feature photos and graphics. The service can be maddeningly



America Online's growing digital newsstand includes Time Online.

slow during peak periods, but America Online is still your best introduction to the world of online magazines. (America Online; 800-827-6364; $9.95 per month includes 5 hours of online time, $3.50 per additional hour)

Good News/Bad News: CD-ROM Magazines

GOOD NEWS

- Multimedia!
- Can listen to audio and watch video clips as you read
- Pushes technology to the edge
- Interactive ads let you sample audio CDs or test-drive software
- Each disc contains thousands of pages of info
- Can spend dozens of hours with each issue

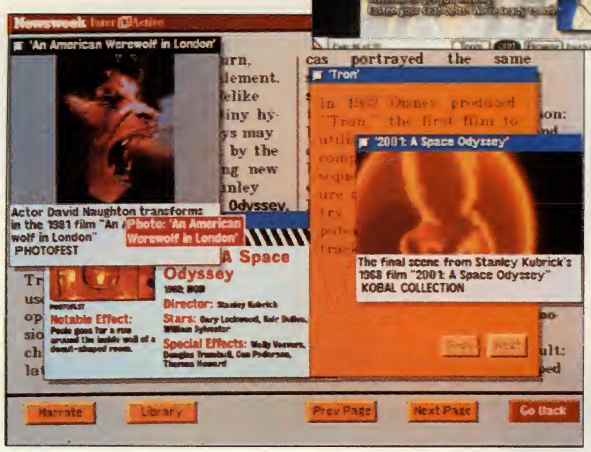
BAD NEWS

- Multimedia!
- Can lapse into a coma waiting for them to load
- ...and then falls off
- TV commercials come to computers
- Quantity ≠ quality
- You have no life

motative design to an illustrated children's story, while Metatec's NautilusCD covers topics as varied as new-age music, flower arrangements, and Cathy Smith workouts.

So far, the only existing periodical to move from paper to disc is *Newsweek*, and its transition has been marred by techno-

NautilusCD, like most of the CD-ROM magazines, has stories that are all over the map in an attempt to appeal to a wide audience.



A recent issue of Newsweek Interactive took readers behind the scenes of Hollywood's special-effects industry.

logical snafus. Michael Rogers, managing editor for the 18-month-old DOS-based spin-off, admits that Newsweek Interactive has been doing a lot of "R&D in public," but says most of the problems should clear up when the Windows and Mac versions appear later this year. "In some ways [multimedia] is like television in 1948," Rogers says. "But on bad days it seems like television in 1938."

But television was free. An annual subscription to a CD-ROM magazine ranges from $40 to $120 per year—a lot more than you pay for most printed magazines. To make matters worse, most titles require some pricey hardware: a double-speed CD-ROM drive, 16-bit sound card, and plenty of processor power and memory.

Like online pubs, disc-based magazines aren't likely to replace their print versions anytime soon, but they do offer a preview of what interactive TV might one day look like.

Converging Technologies Ahead

Online publications excel at interactivity and up-to-the-minute news. CD-ROM magazines provide great visuals and depth. The marriage of the two media promises the best of both worlds. And it's already happening: Last spring, CompuServe began shipping a disc containing photos of products for sale online, so members can browse as they scroll through the electronic mall. Over the next few years you'll see digital publications that store text online and distribute images and formatting on disc.

But all of this is merely a warm-up act for—stop me if you've heard this one—the fabled information superhighway. Prodigy

tional technical glitches, and text-heavy content mar the otherwise high quality. Still, *Newsweek's* big name makes it one of the forces helping to define this new

Big names like *Newsweek* will help push digital journalism into the mainstream.

medium. Windows and Mac versions are due later this year. (Newsweek; 212-350-4000; CD for DOS, $39.95 per quarterly issue, $99 per year)

just think [an interactive]

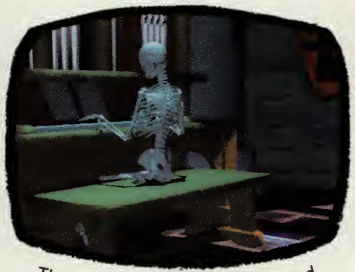
just think wins the prize for its clever interface: You navigate through it via a rotating cube in the bottom-right corner of the screen. Like other CD-ROM mags, just think's content is a little scattered—the first issue contains articles on the paperless office, automotive design, and an illustrated children's story, among other offerings. But the writing is distinctive and there's even a centerfold (a political cartoon, not cheesecake).

just think launches into clever writing—and ads.

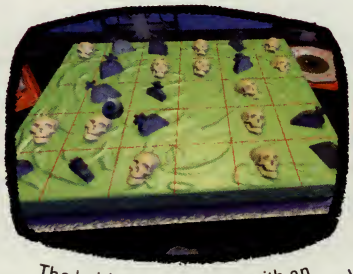
The bad news? The disc boots up immediately into an obnoxious advertisement. (Ad-Hoc Technologies; 800-928-4465; CD for Windows/Mac, $19.95 per monthly issue, $39.95 per year)

THE 7th GUEST IS NOW AVAILABLE ON CD-i.

The scariest look, with scalpel-sharp, stomach-turning graphics and live actors doing things people go to hell for.



The creepiest sound effects, and a terrifying digital soundtrack that'll turn your hair white faster than a career in accounting.



The hairiest experience, with an intense 3-D atmosphere so disturbingly real, you can almost smell the rotting corpses. Gross.

CD-i

Your fingers are numb. You're choking on a wad of bile lurched up from your ulcerous gut. And your heart is beating so violently, those veins on your forehead are visibly pulsating. You are either, a) playing the best version of The 7th Guest ever, b) on your way to cardiac arrest, or c) both. No, my friend, you shan't recover from this one.

Virgin

PHILIPS MEDIA

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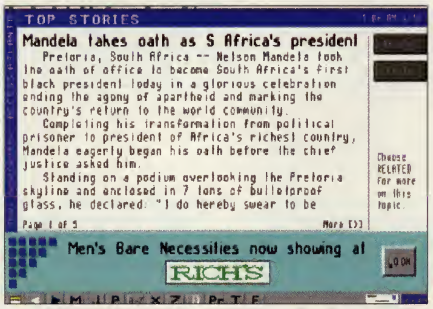
and America Online have announced plans to deliver their services via cable lines and wireless networks to TVs and handheld computers like the Apple Newton. Magazine publishers hope to hitch a ride.

"If somebody brings us a fiber-optic cable, we're happy to dump [the magazine] in there," says Rogers. "What I say to cable TV is, if you can show me a way to get my [information] out to the end-user with quality and speed, and get dollars back to me, we're in business."



Like most Prodigy screens, this "page" from Access Atlanta features news on top and advertisements below.

Lowell Weiss, editorial director of new media for *The Atlantic Monthly*, concurs. "Yes, I can see this magazine appearing on TV screens. No doubt about it."

When they finally hit the small screen, interactive magazines may offer some serious competition to TV news shows like "60 Minutes" or "20/20" because they'll let viewers pick and choose what they want to see. You won't have to sit through a story on baby fashions to get to one about electronic nightclubs. But if magazines are to have a presence on the 500-channel box, they'll have to scramble over some tough hurdles, such as whether viewers will put up with reading text on a low-definition TV screen.

HIGHWAY OR HYPEWAY?

In many ways, today's digital pubs are mere experiments. Not intended to stand entirely on their own, they're designed to help publishers figure out what readers want, how much they're willing to pay, and what the phrase "digital journalism" really means.

Writers and editors, for example, will need to develop a new mix of skills, such as visual storytelling. And interactive technology will let magazines portray stories from multiple perspectives. Writers will be able to use all their story research, not just the one-tenth that now makes it into the final piece. In a typical newspaper story about a baseball player, for instance, you read a few quotes; but a digital pub would let you hear the entire interview—if you were really interested.

But before we can reap the benefits of digital journalism, the technology must take several leaps forward. Online services must be able to send images across high-speed fiber or coaxial networks and provide seamless connections to portable devices like personal digital assistants. Computer and TV screens will have to get much sharper, while online publications will need to support higher-speed modems, high-resolution monitors, and direct links to portable devices. On the CD-ROM side, drives need to be faster and easier to use. Publications themselves will need to devote more resources to their electronic efforts, and learn to treat their digital incarnations not merely as an extension of print but as an entirely new medium—one with its own rules and requirements.

So it's not likely that the reams of paper will be disappearing from my apartment. Meanwhile, I've got a whole new stack of electronic publications to fill up my desktop. In time, they might even become habit-forming.

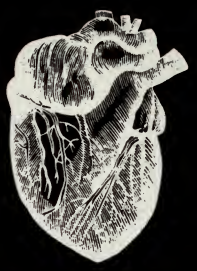
Special Interests

While some digital magazines try to appeal to everyone, others will serve special interests. Here are a few to watch for:

DiscMag A 'zine for sports enthusiasts that comes out every other month. It covers professional and amateur sports in the US and abroad. (PC Sports DiscMag; 800-800-1299; CD for Windows, $19.95 per issue, $75 per year)

Interactive Entertainment A monthly devoted to entertainment and educational software that includes game reviews, game tips, video interviews, demos, and free programs. (Interactive Entertainment; 800-283-3542; CD for Windows, $9.95 per issue; $59.95 per year)

tHUNK! Channel surf through this quarterly 'zine that satirizes cable TV. It includes comics, parodies, and spoofs. (Cube Productions; 212-879-6354; CD for Windows/Mac, not yet priced)



BUY THE PLAYER AND GET THE GAME FREE.

(THAT IS, IF YOU THINK YOUR HEART CAN HANDLE IT.)

Magnavox CD-i 200 Player

Digital Video Cartridge

Free

Right now, when you purchase a Magnavox CD-i 200 player and a Digital Video cartridge, we will put a 7th Guest CD-i game in your clammy little hand free of charge.* Plus you get the cool game, Kether, which already comes packed inside the player box. Sure hope you have good medical coverage, buddy.

CD-i

PHILIPS MEDIA

*Offer is good only at participating retailers. Offer is good until 12/19/94. Offer is good. ©1994 Philips Media. All rights reserved.

Circle 168 on Reader Service Card

Why Women Don't Play Computer Games

Do computer games create an exclusive boys' club, or are women just not interested?

Brody Giles is a 26-year-old system analyst from California who loves SimCity 2000. Brody says he plays to relax and escape. His wife Tracy thinks he's obsessed.

"He used to play four hours a day," complains Tracy, 31, who wants her husband back. "It's not that I don't like the game," she says, "but he really gets into it—he becomes enthralled. Something goes on for him—he feels he has the power to control his destiny in the game.

It may not be violent—or even all that serious—but the Giles' "battle of the sexes" is being waged in front of computer screens all over America. Women claim men are obsessed with flying planes, playing golf, beating up martial artists, and building cities on their computers. And men just don't get why women don't dig it the way they do.

For most women, computers are still tools for getting work done, not for having fun. In the words of Laurie Strand, Brøderbund Software's publisher, "Women view computers as tools, men view them as toys."

Personal computers may be relatively new, but the "fun with technology" issue has been around for a long time. "Thirty years ago, my dad was doing the same thing," says Bruce Ryon, a multimedia analyst with the research firm Dataquest, "only he was working on his car." For whatever reason, Ryon says, "men are much more into mechanically oriented problem-solving, while women are better at interpersonal problem-solving."

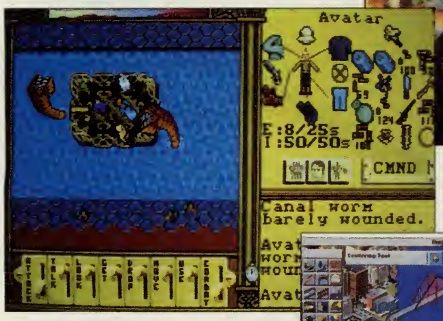
ILLUSTRATION BY DAVID PETERS

By Jane Greenstein

Boys' Club

One look at who uses multimedia proves that the technological boys' club is still in business. Sega reports that less than 10 percent of its Sega CD users are female. Both 3DO and Philips CD-i games are also predominantly played by males. And Compton's NewMedia estimates that women purchase only a minor percentage of CD-ROMs.

Sierra On-Line's King's Quest games woo women with adventure and romance.



Role-playing games like Martian Dreams tend to appeal to women.

Despite women's recent political gains, SimCity is still BoysTown.

Surprisingly, women don't seem to be as attracted to using their computers to communicate, either. Big online services such as America Online (700,000 members) and CompuServe (almost 2 million members) report that 80 percent of their users are male. A new online service called Women's Wire debuted earlier this year to provide an online forum for women-focused information. Some 90 percent of its members are women, but the fledgling service has attracted just over 1,000 users.

If You Build It, Will They Come?

In the absence of a demonstrated market for female-oriented titles, the vast majority of games are specifically targeted at a male audience. Developers say the classic "chicken and egg" theory prevails when it comes to games that appeal to females: Women rarely buy computer and video games for themselves, so manufacturers are hesitant to develop products geared to them. At the same time, there aren't many products aimed at women, so there's little to attract them.

Scott Walchek, president of software publisher Sanctuary Woods, agrees that developers are focused on "feeding this hungry monster, which is young, homogeneous male game players." But by the end of the century Walchek estimates 50 percent of U.S. homes will have computers, which may encourage a shift in multimedia demographics.

In an attempt to develop the female market, last year Sanctuary Woods released Hawaii High: The Mystery of the Tiki, a mystery/adventure CD-ROM for preteen girls. (For more about games for girls, see "Starting Young," on page 60.) Walchek says the title sold "OK," but adds that the first axiom in the interactive world may be the root of why women and girls haven't plugged in and turned on: "Things that aren't games don't sell well," he says. And women, in general, aren't big gamers.

Marie Wilson, president of the Ms. Foundation for Women, which organizes the annual "Take Our Daughters to Work" day, doesn't buy the chicken-and-egg argument. For Wilson, the issue is more than dollars and cents. She cites research that suggests that girls are discouraged from using computers in schools. "This whole video and computer area is one that girls can't lose out in the future—it can hurt their life performance," Wilson says. Computer literacy is one of the essential keys to career success, she adds, and computer games are a great way to get comfortable with the machines. "Games right now are so boy-directed; it's a failure of the market," Wilson concludes.

Game Girl?

There is one electronic game platform that women have already taken to in a big way: Nintendo's portable Game Boy. Despite its name, 41 percent of Game Boy users are women. Part of the lure of the Game Boy is that it often comes packed with Tetris, the game that took the country by storm a few years back. Sit on an airplane, and you'll see plenty of businesswomen keeping themselves busy by fitting the tumbling squares.

"Gender Neutral"

The best chance to entice the half of the population that doesn't eagerly await the Return to Zork may not be to specifically target women and girls. "Gender-neutral" games are designed for both sexes to enjoy.

One game that has successfully

5 Top Games Women Won't Touch

1. **Mortal Kombat** Hand-to-hand combat is not a favorite among females. (Acclaim Entertainment; 516-624-8888; Sega CD, $49.95. Ultratech; 800-447-6543; DOS, $69.95)

2. **Night Trap** Co-eds in negligees are of little interest to most women. (Digital Pictures; 415-345-5300; Mac/3DO, $59.99)

3. **Streetfighter II** See Mortal Kombat above. (Hi Tech Entertainment; 800-447-6543; DOS, $59.99)

4. **Man Enough** The ultimate sexist game—how to pick up women. (Tsunami Media; 800-644-9283; CD for DOS, $79.95)

5. **Mad Dog McCree** Most marshalls were men. (American Laser Games; 800-863-4263; Sega CD/3DO/CD-i/CD for DOS, $59.95)

crossed over is Brøderbund's popular Myst, "The Surrealistic Adventure That Will Become Your World." The lush 3-D graphics and esoteric puzzle-based game play separate it from standard shoot-'em-ups. In Myst, players solve puzzles that will help unravel the mysteries of Myst Island.

Brøderbund doesn't have hard data to confirm the game's appeal to women, but the company has received plenty of letters, product response cards, and e-mail from women praising the game.

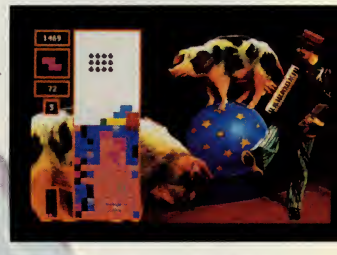
"Myst has this romantic element to it," explains Los Angeles-based children's interactive media producer and consultant Eileen McMahon. "We relate to it as adventure."

Brøderbund's Strand says she was "immediately attracted" to Myst when developers Rand and Robyn Miller of Cyan presented it to her. "I could see women playing this," she says. "It was a thinking game—we weren't forced to be competitive. There was a mystery. Women are drawn to solving puzzles; women like things they can do without time pressure."

Ironically, the game world is so male-oriented that initially Brøderbund didn't want to even hint that Myst might be a hit with women. "We talked about how it might appeal to women," says Strand, "but we almost whispered it, because we didn't want the word to get out."

Sega is attempting to hone in on the "gender-neutral" market with games for the Sega CD that appeal to both sexes, according to Steve Payne, director of marketing for Sega CD and new products. Traditionally the home of violent and bloody "male" games such as Night Trap and Mortal Kombat, two new Sega CD titles—Baby Boom and Pencil—will be "fun and challenging without violence," Payne says.

Baby Boom takes place on New Year's Eve 1999, "when all the late-century yuppies who live in automated apartments are going to a New Year's Eve party. They leave their babies at home, under the care of an automated computer. But the alarms go down, and the babies are free to roam the apartment building causing mayhem." It's up to the player to control the itinerant infants.



Tetris' falling blocks seduce women as well as men.

Pencil also targets both genders. "The pencil on an editor's desk comes to life," explains Payne, "While the editor is away, the pencil can draw humorous tools to help beat various enemies in the game."

One Who Plays

Heather Schik likes computer games. The 24-year-old multimedia producer says her game-playing is fueled by the same fantasies she conjures up when reading science fiction, her other passion.

"I get so involved with my reading, I can imagine everything," Schik says. "I picture myself in the book. The same goes for computer games, particularly role-playing games. I imagine myself in the situation.

"I play a lot of adventure games, like Martian Dreams," says Schik, an associate producer for Compton's NewMedia. "I played The 7th Guest until I got bored. I like things that I have to think about and figure out. I've played Mortal Kombat, but I'm not really into that. You don't really need to think. What's the point?"

Even without an interest in Mortal Kombat, Schik stands out. "All my girlfriends think I'm crazy," she says. "They only buy games for their children." Schik says it's no wonder men are the primary purchasers of multimedia—the packaging and promotion of interactive products is all aimed at them. Schik points to interfaces that utilize dark colors and packaging that champions the virtues of testosterone.

As a multimedia designer, she's attempting to design multimedia titles with women in mind. She's trying to design interfaces with softer edges—not the "rough, metal look"—as well as having female narrators for CD-ROMs. *—JG*

5 Top "Gender-Neutral" Games

1. Myst Stunning visuals and challenging puzzles are a hit with gamers of all genders. (Brøderbund; 800-521-6263; CD for DOS/Mac, $59.95)

2. The 7th Guest Top-notch graphics, mind-bending puzzles, and a macabre sense of humor appeal to men and women. (Virgin Interactive Entertainment; 800-874-4607; CD for Mac/DOS, $99.99; CD-i, $59.98)

3. Tetris The simplicity and the frantic pace please anyone looking for a quick gaming fix. (Spectrum Holobyte; 800-695-4263; DOS/Windows, $40)

Both sexes will find The 7th Guest a scream.

4. King's Quest V and VI Royal adventure and romance woos women role-players. (Sierra On-Line; 800-757-7707; DOS/Mac, $69.95; CD for DOS/Windows, $79)

5. SimCity 2000 Though most players are men, control freaks of both sexes like building and managing their own metropolises. (Maxis; 800-336-2947; DOS/Windows/Mac, $69.95)

Expanding the Playing Field

According to many experts, distribution is the real key to getting women hooked on games. Software developers hope to broaden the circle of distribution outlets outside of computer stores to include book, record, and video stores, and most critically, mass merchants like WalMart and K-Mart. That segregation is already fading, however. At Virgin Megastores, for example, software sits side by side with CDs and videos. Theoretically, that approach should make it easier for women to enjoy computerized entertainment.

"As the channels of distribution change, so will the market," adds Compton's NewMedia's president of marketing development and product planning, Tom McGrew. "If women go to outlets they're more comfortable shopping in—bookstores or music stores—and see CD-ROM titles, they'll feel more comfortable. That's more than likely what it will take to pick up the market."

"My wife wouldn't be caught dead in an Egghead," says Peter Black, president of software publisher Xiphias, "but she'll likely shop at Blockbuster."

"The issue of reaching the women's market is difficult," agrees Sarina Simon, president of Philips Media's Family and Home Entertainment Division. "CD-i is mainly sold where hardware is sold. Women and young girls don't hang out there."

It's Up to You

That's why it may be up to the guys to introduce females to the wonders of games. The common wisdom is that if you bring a computer into the house, sooner or later everyone in its radius will get on the motherboard.

"Women, primarily, don't buy hardware," says Compton's McGrew. "Men go home and tell their wives they've bought a computer. The man's going to go buy the

Starting Young

Last year Sega created an informal "girls' task force," consisting of six employees and a handful of consultants, to develop games for the girls' market. According to Michealene Cristini Risley, Sega's group director of licensing and character development, the task force has compiled a stack of research, based on academic reports as well as Sega's interviews with young kids to assess what boys and girls like in video games.

Ecco the Dolphin for Sega CD makes a splash with both boys and girls.

Risley says the task force's research has determined that "boys are better at target-directed motor skills, girls at quick, small movements. Boys are better at navigating through mazes, girls toward a visual landmark."

A bigger issue is that the parents of girls often discourage them from playing video games. According to response cards from the company's products, Risley says, "Fathers view video games as boys' toys."

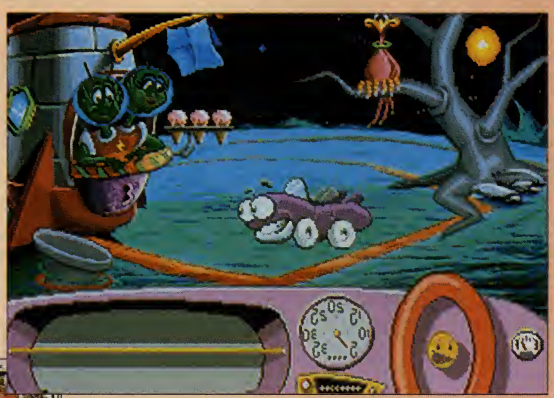
The first results of the task force are a couple of new titles aimed at both young boys and girls. Crystal's Pony Tale, due for release in October, tells the tale of Crystal, a pony who tries to free her friends from a witch by collecting crystals. Another gender-neutral Genesis game, The Berenstain Bears Camping Adventure, is also due this fall.

But while "gender neutral" seems accepted, game companies are deathly afraid to produce girls-only titles.

Maxis scales down its classic sim for kids in SimTown.

Game writer and designer Annie Fox, who co-wrote a script for a computer game for Electronic Arts based on the *Madeline* series of children's books, says the company wanted to explore ways of making it appeal to boys and girls. "Madeline is Madeline—no matter what we do, it's a girl's product," asserts Fox, who says Electronic Arts suggested making a male character more prominent, but to their credit, they were flexible. "It was interesting the topic even came up. I've sat in so many script meetings for other products where the reverse question—what can we do to appeal to girls?—was never asked."

The venerable Carmen Sandiego is a gender-neutral sucess story.



Putt-Putt Goes to the Moon is a crossover hit with girls.

So for now, girls will have to make do with crossover titles like Brøderbund's Where in the World is Carmen Sandiego?, Humongous' Putt-Putt series, Sega's Ecco the Dolphin, and Nintendo's Mario Paint for The Super Nintendo Entertainment System.

This fall Maxis will introduce SimTown, targeted at boys and girls ages 8 to 12. Meanwhile, Humongous is developing Bobo and Fletcher Go Deep into the Congo. It's what Humongous president and chief executive officer Shelley Day describes as an animated "storytelling adventure" for all family members. "We're trying to create software that follows a Disney model, where adults say, 'I know I would enjoy that experience, too,'" says Day. And Big Top Productions will be releasing more titles in its Hello Kitty series. The first, Hello Kitty's Big Fun Piano is already available.

There will be at least one new girls-only title. Hi Tech Entertainment will release Barbie and Her Magical House in October. True, few boys would be caught dead playing with Barbie, but will girls be interested? Playing Barbie on a computer is a lot different than handling clothing and otherwise pretending with a real doll. We'll see. *–JG*

first pieces of software to go with it. If the woman finds something compelling, then she's going to start buying software."

"Even if they're not buying software, women are drawn into it by their husbands and boyfriends," adds Brøderbund's Strand. "We get letters from women saying, 'This has never happened to me before.' It's like they got religion."

Gaze Into the Crystal Ball

Despite the current confusion in the game marketplace about "a women's place," the future for female-oriented products looks encouraging. If nothing else, the intense media coverage the issue has received will help.

Demographic research also indicates women are growing more attached to computers. A survey conducted by Dataquest found that women represent 40 percent of those in the "hobbyist" category. The hobbyist market, according to Dataquest's Ryon, is dominated by "married males with a couple of kids." Women, however, accounted for 50 percent of CD-ROM users, while a larger percentage of men play floppy disk-based computer games.

"The data surprised me," says Ryon, who expected women to make a less impressive showing in the CD-ROM category. "What may be going on is that women are using games with their kids."

Cultural issues also need to be addressed before women and girls see a flood of products aimed at them. Capcom spokeswoman Laurie Thornton says many video and computer games popular in this country—particularly "fighting games" such as Capcom's Street Fighter II and Acclaim's Mortal Kombat—are almost identical versions of Japanese arcade games. The attitude toward women in Japan is not as enlightened as in this country," Thornton says.

"Of course women and girls weren't considered when they designed Street Fighter II, because the female market isn't considered as viable in Japan," Thornton says. As diversity-oriented Americans design more games and multimedia titles, they may take more types of people into account.

Lush scenery and ambiguous puzzles help Myst bridge the gender gap.

Jane Greenstein is senior editor at Video Business *and a freelance technology writer.*

4 Ways To Get Your Mate to Play

1. Tempt her with games she might like.

Just because she doesn't like blowing away Nazis in Wolfenstein 3-D doesn't mean she wouldn't be up for solving puzzles in Goblins Quest 3 or trying her hand at piloting a jet in Flight Simulator. Instead of pushing your favorites, let her choose.

2. Hand over the joystick.

You may think she doesn't want to play, but how would you know if you never offer to give her a turn?

3. Don't make it a competition.

Computer games are supposed to be fun, not a substitute for agression. Try cooperating on the same side instead of blasting away at each other.

4. Try a different platform.

Maybe it's just the shoot-'em-ups on your 3DO that don't interest her. Let her check out some of the more thought-provoking games for your PC or Mac.

Advertisement

Circle 135 on Reader Service Card

Rock 'n' Roll Fantasy

By Robert Lauriston

These electronic musical gadgets may not make you a concert headliner, but they're a whole lot more fun than practicing.

What's your pop-star fantasy? Are you a nimble-fingered guitar hero, striding across the stage of the Enormodome? Do you dream about being the wild-man drummer, flailing away at the kit to power the sound? Or maybe you're master of the microphone, rocking the house with your rhythmic rhymes.

There's only one tiny hitch. Making that fantasy come true takes practice, dedication, and maybe even talent.

No talent? No time? No problem.

A new generation of electronic musical toys delivers instant musical gratification for fans who can't be bothered with mastering a conventional instrument.

Dispensing with keyboards that may remind you of dreary grade-school piano lessons, these innovative instruments can turn anyone into a rock star. We dug up two high-tech axes for air guitarists, a pair of virtual skins for wanna-be bongo beaters, and even an electronic DJ to back up closet rappers.

The Jaminator gives form to your air guitar.

Jaminator

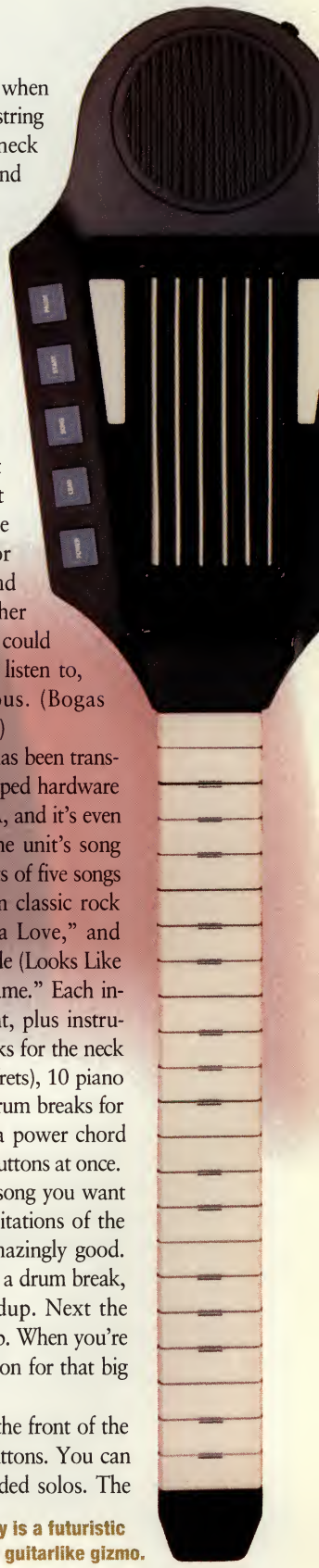
Air guitar made flesh. That's how it feels when you first pick up the Jaminator. "Pick" a string by pressing one of the buttons on the neck and tapping a strum button, and the sound of a screaming electric guitar blasts from the speaker. A grungy, noisy, 8-bit sample of an electric guitar, to be sure, but close enough for rock 'n' roll.

The Jaminator descends from a classic Mac program called Jam Session, which uses the Mac's 8-bit digital audio to produce arrangements of sampled instruments. You add lead lines on top by tapping the Mac's keyboard. What makes Jam Session unique was that instead of a key simply triggering a single note, it plays a short melodic phrase or rhythm pattern, always on the beat and never out of key. While few people other than the developers at Bogas Productions could make music anyone else would want to listen to, the program is addictive and hilarious. (Bogas Productions; 415-592-5129; Mac, $59.95)

Now the concept behind Jam Session has been translated into a standalone piece of guitar-shaped hardware by a company called Multi Mediums USA, and it's even more fun than the software original. The unit's song selection (five built in, with additional carts of five songs each selling for $19 apiece) ranges from classic rock like "Johnny B. Goode," "Whole Lotta Love," and "Purple Haze" to such MTV hits as "Dude (Looks Like a Lady)" and "You Give Love a Bad Name." Each includes a bass-drums-rhythm arrangement, plus instrumental fills, 39 rhythm and lead-guitar licks for the neck (one per strum button on each of the 13 frets), 10 piano or organ licks for the piano keys, and 3 drum breaks for the percussion pads. Each fret also has a power chord that sounds when you hit all three strum buttons at once.

To play the Jaminator, you select the song you want and hit the Start button. Despite the limitations of the 8-bit sound, the arrangements sound amazingly good. After a few introductory bars, it goes into a drum break, and then the "band" goes into a buildup. Next the Jaminator returns to the verse-chorus loop. When you're ready to wrap it up, press the Finale button for that big rock-show stop-on-a-dime finish.

While all this is going on, you step to the front of the stage by pressing the strum and piano buttons. You can add tasteful licks or go nuts with extended solos. The guitar licks continue until you release the fret button. You can press multiple strum or piano buttons to combine the canned



The Key is a futuristic plastic guitarlike gizmo.

Pound out rhythms on the Yamaha DD-14's touch-sensitive drum pads with your hands or special sticks.

licks—which means you can get some really wild-sounding stuff going even if you're slow and uncoordinated.

If you try something really complicated, the Jaminator can act weird, playing out-of-tune notes or mutating the riffs. That can be kind of cool—sort of the digital equivalent of feedback from a stack of Marshall amps. You can also jam on the licks *without* the backup track, which is even more fun. (Multi Mediums USA; 800-369-4702; $199)

The Key

Imagine yourself in a stadium, onstage with Guns 'N Roses. The beat is pounding, the crowd's screaming, Axl Rose is belting out those dog-whistle vocals. Suddenly Slash thrusts his guitar into your hands. The fans go wild as your flying fingers tear off a lead that would make Jimi Hendrix proud.

Now imagine yourself in your living room, sitting on the sofa. A Guns 'N Roses video is playing on the TV. You're holding some kind of futuristic plastic guitarlike gizmo. As you pluck these weird finlike things where you'd expect strings to be, it plays whatever note Slash is playing at that instant.

You can probably guess which of these two scenarios describes the Key, a genre-bending guitar and karaoke box. Connect the Key to a VCR's video-out jack, play a specially coded video, thrash away, and the Key magically turns your clueless fingering and strumming into an impressive-sounding solo. The notes available on the neck and the chords on the strummer automatically change to match whatever is happening in the video. Think of the notes as "passing under" your fingers, ready to sound whenever you tap a button or strummer vein.

There's trouble in playland, though. If you don't happen to hit the notes in the right rhythm, the results can sound pretty strange. For example, guitar solos often have chromatic runs containing passing notes in a different key from the rest of the song. They're played so quickly that you hear them only as an ornament leading up to the pitch of the final note. But with the Key, it's easy to sustain these notes—with pretty sour results.

Backup arrangements run the stylistic gamut: house, swing, rap, bossa nova, beguine, Euro beat, polka, "Mozambique." Unfortunately, its taste also runs from good, to bad, and all the way down to skating-rink hell.

In some ways it's more fun to unplug the Key from the VCR and forget about the rock-video backup. Pressing one of the buttons on the Key's neck changes the notes assigned to the strummer veins, and by plucking or strumming the veins as you change buttons on the neck, you can play melodies, finger-pick arpeggios, or strum chords—a little bit like an autoharp. If you've hooked the Key to external stereo speakers, you can determine which speaker the sound comes out of by fooling with where you pluck the vein.

Lonestar and other companies, such as Geffen, Atlantic, and MCA, plan to release compilations of rock videos overlaid with the Key's special codes, including long-form videos by Aerosmith, Cream, Peter Gabriel, Guns 'N Roses, and the Lemonheads. According to the company, developers can easily add the code to just about any medium—CDs, laserdiscs, broadcast TV, and even CD-ROM. Lonestar also plans to sell $25 ROM packs that each contain 10 to 12 canned arrangements of popular songs, with which you can play along in stand-alone mode.

The unit includes MIDI ports, and its 127 patches follow the General MIDI standard, so if your computer has a MIDI interface the Key could do double duty as a high-quality tone generator for games, sequencers, and multimedia software. (Lonestar Technologies; 516-939-6116; $400)

Yamaha Digital Percussion

If you're not cut out to front the band, you can always hide behind a drum kit. To get you started, Yamaha's DD-8 and DD-14 electronic drum pads provide canned rhythm and melodies to jam with. They are pretty much like the company's home keyboards, except instead of black-and-white keys they've got big green drum pads.

The DD-14's 100 bass-drums-rhythm backup arrangements run the stylistic gamut: house, swing, rap, bossa nova, beguine, Euro beat, polka, Mozambique. Unfortunately, its taste also runs from good to bad, and all the way down to skating-rink hell. The better arrangements benefit from the high-quality percussion samples and clean FM synthesis used in the bass rhythm-instrument sounds. You can switch the eight pads between 25 different "kits," or make up your own kits by assigning up to 100 percussion instruments and sound effects to the various pads. While the idea sounds good, the DD-14 doesn't really make much sense. Chord accompaniment is great when you're playing a tune—but for a drum solo?

The DD-14's little brother, the DD-8, is a lot more entertaining. Its 100 backups are strictly drum patterns. Jamming along with them on the four pads is big fun, particularly when you switch on the Super Session Player feature, which makes the machine respond to what you're playing by varying the drum machine's pattern and throwing in fills and breaks. That feature isn't nearly so much fun on the DD-14, where it usually adds melodic lines and horn breaks instead of percussion. On either machine, the Super Session Player is useless when the rhythm backup is turned off—it just throws out beats and sound effects at random, as if annoyed that you're touching its pads.

A big problem on both machines is the pads themselves. You have to hit them pretty hard to produce a sound, which makes it impossible to use the pads' full dynamic range when playing with your hands. When you switch to drumsticks (included), the sound of the stick hitting the pad becomes annoyingly loud. (Yamaha; 714-522-9011; DD-8, $119.95; DD-14, $249.95)

The pitch-shift on the Casio Rap-Man's microphone can make you sound like a Dalek or Daffy Duck.

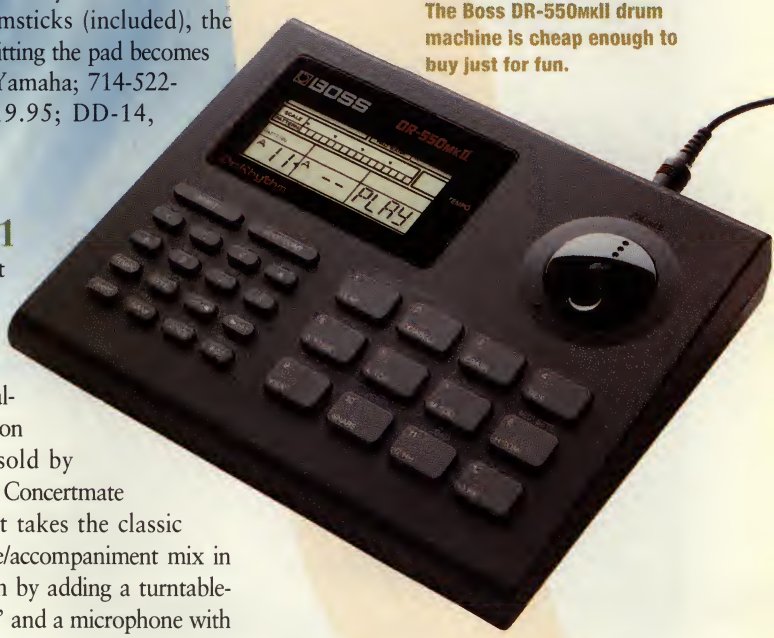
Imagine yourself in a stadium, on-stage with Guns N' Roses. The beat is pounding, the crowd's screaming, Axl Rose is belting out those dog-whistle vocals. Suddenly Slash thrusts his guitar into your hands. The fans go wild as your flying fingers tear off a lead that would make Jimi Hendrix proud.

Casio Rap-Man 1

At first glance it looks a lot like a basic electronic keyboard, but Casio's Rap-Man 1 is actually like nothing else on the market. Also sold by Radio Shack as the Concertmate 800 Rap-Master, it takes the classic synth/drum machine/accompaniment mix in a wild new direction by adding a turntable-like "scratch platter" and a microphone with "Voice Effector."

The sounds are the customary Casio synthetic wave forms, familiar to anyone who has played one of the company's keyboards. While nowhere near as realistic as sampled sounds (and a bit crude and distorted compared with the FM and wave-table synths used by other companies) they have a distinctive charm. As usual, the percussion stuff is particularly cool. The bass sounds great, too, as do *some* of the 25 lead sounds. Others, however, are truly lame—especially the obnoxious Orchestra Hit patch.

To start the Rap-Man jamming, you tap a key to trigger your choice of 30 funky hip-hop and reggae-ish backing tracks. The first octave is drum tracks only, while the rest of the keys trigger full arrangements, with bass and rhythm. Once the beat starts, the keyboard switches into lead mode so you can lay



The Boss DR-550MKII drum machine is cheap enough to buy just for fun.

The Yamaha DD-8 offers 100 rhythms for would-be bongo beaters.

your single-note (monophonic) lead or bass line down on top.

Unlike with most other Casios, the keys don't affect the backup track's chords. In fact, there's no way to change a particular track's key signature. This could be frustrating for those without sufficient musical knowledge or intuition to figure out that a track is C minor with a flat 7th and play in the appropriate scale. If you're good at playing by ear, it shouldn't be a problem.

Finally, there's the microphone. Set the Voice Effector (a pitch shifter) switch to Normal, and it amplifies your voice through the internal speaker. On the low settings, you sound like Pac Jam, a Dalek, or Laurie Anderson's "difficult listening" character; on High, like a Munchkin.

With a little practice, you can switch between lead instruments on the fly and use the Stop button to switch between backup patterns without losing the beat, stretching out your raps to magnum 12-inch remix opuses. Won't your friends and family be thrilled? Be forewarned: Unless you think Mr.Megaphone was a good idea, putting this item in the hands of a small child may endanger your sanity.

Casio's not making these babies any more, but there are still plenty to be found on the shelves. The list price is $99.95, but you may find them for as little as $50 on closeout at Radio Shack. (Casio; 800-962-2746, $99.95)

Do You Want One?

The one musical gadget that really stands out in this crowd is the Jaminator. Sometimes it can even make you forget that you really can't play guitar worth a damn. The Yamaha DD-8 is a lot of fun, too—and unlike the other instruments, it has some educational value as well. Jamming with the DD-8 might teach you a few things about drumming and could definitely improve your ability to keep a steady beat.

Unfortunately, the Jaminator, DD-8 and DD-14, and Rap-Man 1 share one major failing: no mix control to adjust the relative volume of the lead and backup tracks. The result is that solos often drown out the accompaniment, or vice versa.

There's still no perfect musical gadget. If you combined the always-in-tune, always-on-the-beat approach of the Jaminator, the sound quality and expressiveness of the Key, and a more intelligent version of Yamaha's Super Session Player, you'd have something that could not only make you sound good but also approximate a real musical instrument. In the meantime, though, these gadgets deliver on their promise of musical fun without a big investment of time or effort. And you don't need any talent, either.

The Walkabout—I don't want to work, I just want to bang on the drum all day.

Robert Lauriston is a contributing editor for Windows Magazine *and coauthor of Peachpit Press'* PC Bible. *His favorite musical gadget is a 1934 Chickering baby grand.*

More Bizarre Musical Stuff

Walkabout An electronic drum kit with a difference—you wear it. It even comes with a special pair of electronic "trigger shoes." Way cool, way expensive. (Walkabout Percussion Systems; 310-306-2701; $1,595)

Kawai Pocket Band Plug your electric guitar and a pair of earphones into the Pocket Band and clip it to your belt, and you can jam along with synthesized backup arrangements. (Kawai; 800-421-2177; $199)

Virtual Guitar Why play air guitar when you can hold a real ax in your hands? Plug this faux guitar into your PC and play your way to the top. The computer controls the rhythm and beat as you work your way through a number of games in your scramble for auditions, club dates, and recording contracts. (To jam with Aerosmith, see "Share Centerstage with Aerosmith," page 9.) (Ahead; 617-969-3195; $109.95)

BOSS DR-550mkII This drum machine sounds as good as most pro models, but it's cheap enough to buy just for fun. Use its touch-sensitive pads as a fingertip drum kit, with or without backup beats. (Roland; 213-685-5141; $350)

Fretlight Guitar This Fender Stratocaster clone uses 132 LEDs embedded in the fretboard to teach you chords and scales. The company is working on an acoustic version, and a bass guitar is also available. (Optek Music Systems; 408-894-8220; $499)

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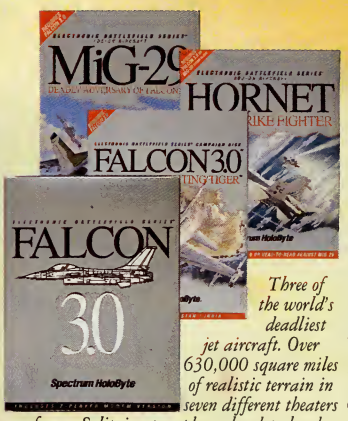

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The Multimaniac soothes his high-tech hypochondria with some multimedia M.D.s

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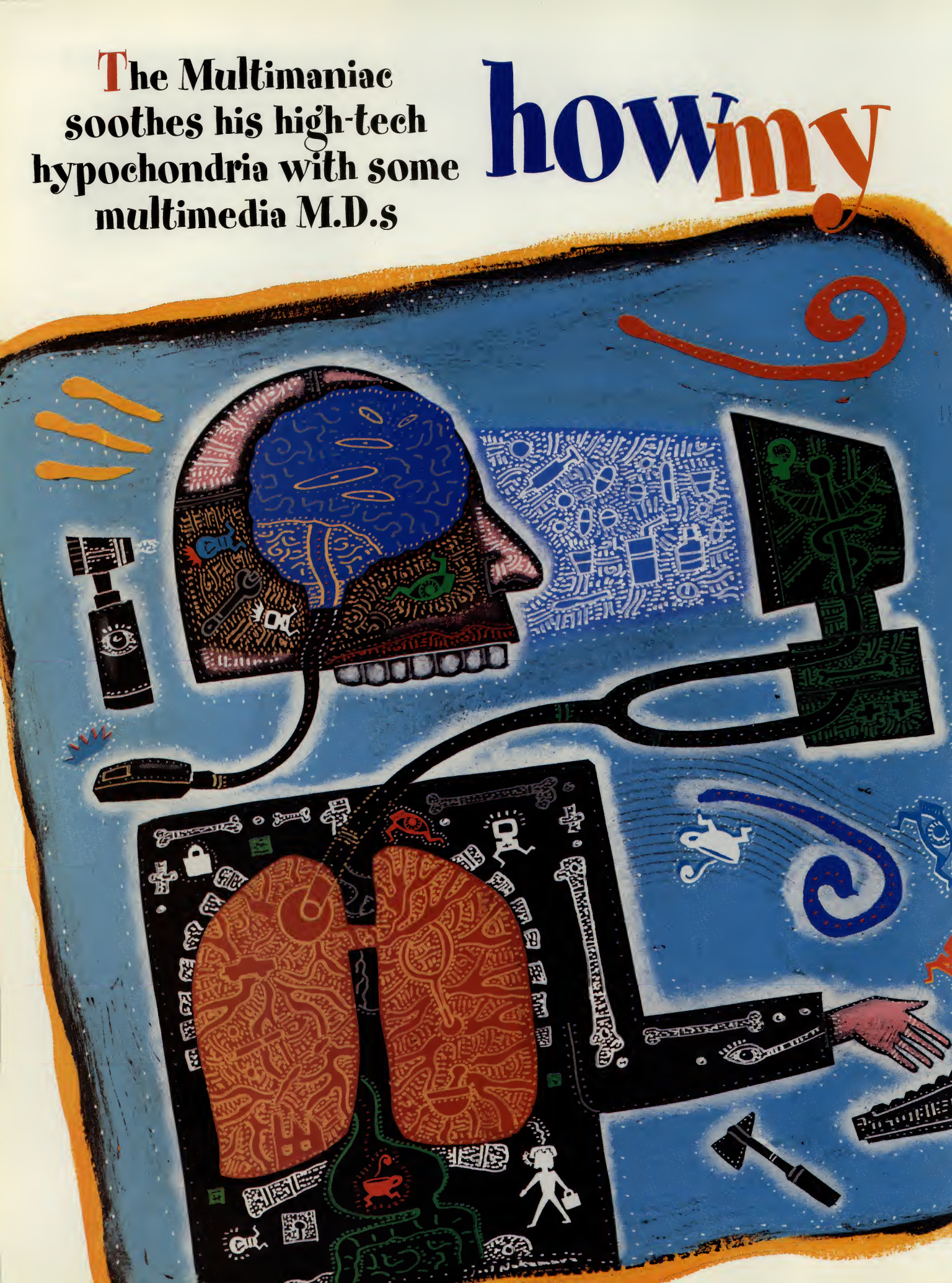


PC replaced my doctor

ILLUSTRATION BY JOEL NAKAMURA

THE MULTIMANIAC has uncovered a fantastic truth: no one who has a CD-ROM drive really needs a doctor. Several hours of careful study on the part of the ever-meticulous Multimaniac show that the latest generation of home medical software obviates the need for almost all professional medical services.

Now, in the spirit of Hippocratic modesty, the pioneering developers who make these products don't actually claim that they can replace the services of a neurosurgeon or pharmacist. Instead, they designed them to enhance one's all-too-often unsatisfactory brushes with the medical system.

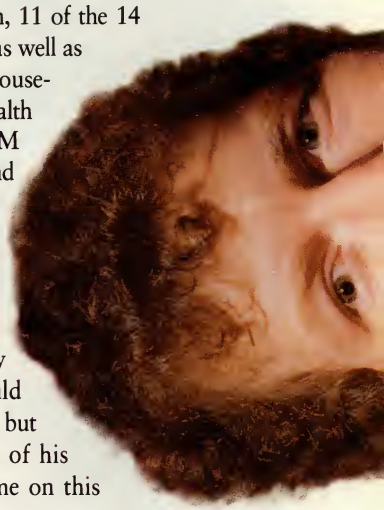
But in the course of my oh-so-scientific research, I discovered so many uses for these programs that I began to believe I might never have to call a doctor, visit a clinic, or set foot in an emergency room again. And that's when the room filled with a blinding light. I fell to the ground, gibbering and speaking in tongues. Noxious fumes filled the air and then—POOF—all was quiet and clear. I realized that the Multimaniac had stumbled upon the only true path toward a 21st Century Health Plan.

Unlike Bill and Hillary's Health Plan, the Multimaniac's high-tech doc-on-a-disc alternative won't cost billions of gondolas per annum. In fact, its cost could go as low as a one-time investment of $98 per family unit. Heck, that's less than the Multimaniac pays for premium cable channels every month.

None of this would be possible were it not for the fine selection of home medical software now being brought to market, including the Mayo Clinic Family Health Book Interactive Edition CD-ROM from IVI Publishing, Dr. Schueler's Home Medical Advisor Pro from Pixel Perfect, BodyWorks 3.0—An Adventure in Anatomy from Software Marketing, and the Healthsoft Medical Dictionary & Family Health Guide, and Healthsoft Complete Guide To Prescription & Non-Prescription Drugs, both from Great Bear Technology.

The Nuclear Family Plan

For all 14 American households that still conform to the traditional nuclear family pattern of Mom, Dad, 2.4 kids, and 1 dog (oddly enough, 11 of the 14 live on one street in Provo, Utah), as well as several million semi-traditional households, the Mayo Clinic Family Health Book Interactive Edition CD-ROM offers an ideal mix of expertise and reassurance.

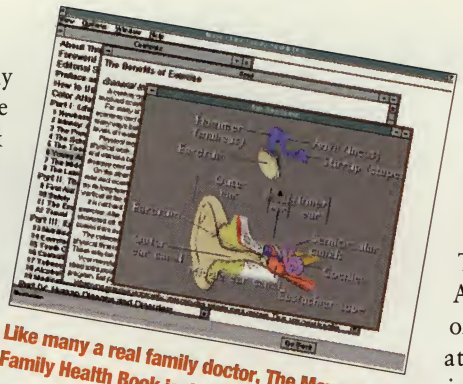


I've got to admit right from the start that the Mayo disc is duller than a "Father Knows Best" rerun. But maybe that's a virtue in this case. Dr. Welby wasn't exactly the type you could count on for a good raunchy joke, but he earned the respect and trust of his patients. The Mayo Clinic's name on this disc does much the same thing.

As the Multimaniac, of course, I have to conform to a higher standard. Trustworthy information isn't enough—I have to be entertained as I stay healthy. And the Mayo disc is less successful on that score. Most of its infor-

by Paul Bonner

mation is simply the text of the original book transplanted to the screen. Sure, as a new parent I found the chapters on each stage of infant and child development helpful, and I also thought it interesting that the guide to prescription drugs indicated that the two pills my doctor prescribed for me last week don't interact well.



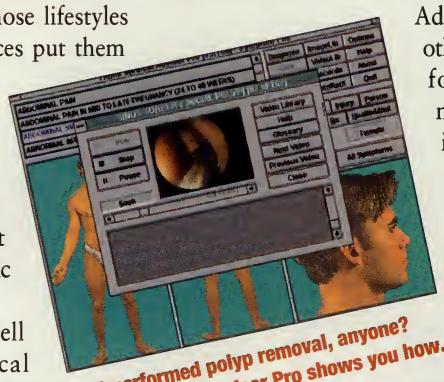
Like many a real family doctor, The Mayo Clinic Family Health Book is dull but invaluable.

There are even a few colorful multimedia segments, like the Color Atlas of Human Anatomy and (unfortunately) the Photographic Guide to Common Skin Disorders, but for the most part, this disc's creators took the word "book" in its title too literally for my tastes. The long chapters on the body's major systems, broken up with only an occasional illustration, put even the mighty Multimaniac to sleep.

So two cheers for "Marcus Welby, M.D.," but don't forget the No-Doz. (IVI Publishing; 800-952-4773; CD for Windows/Mac, $69.95)

The High-Risk Plan

The estimated 170 million Americans whose lifestyles or circumstances put them at constant risk of grievous injury will want to consult Dr. Schueler's Home Medical Advisor Pro. It's the closest thing I could find to an electronic emergency room.



Self-performed polyp removal, anyone? Home Medical Advisor Pro shows you how.

The Multimaniac could tell right off that Home Medical Advisor Pro was the real thing. Like all his favorite music CDs, this disc carries a parental warning label, noting that "some images may be too graphic for younger audiences." What could they be thinking of? The full-color images of gunshot wounds, compound fractures, and third-degree burns? The videos of sinus surgery, artificial joint replacement, or brain surgery? Well, it doesn't matter. The squeamish can take advantage of the built-in Censor function to disable the video sequences and images.

Even beyond satisfying my nearly endless lust for gore, Home Medical Advisor Pro had other attractions for the Multimaniac. I used its diagnostic sequences to identify and come up with treatment plans for several old joystick injuries—I just pointed-and-clicked on the body part that was troubling me, and then answered a few simple questions ("No, I've had no major injuries recently,...Yes, the pain gets worse over time..." etc., etc.,) and faster than you can say, "I'm sorry, the doctor's running a little late. Please take a

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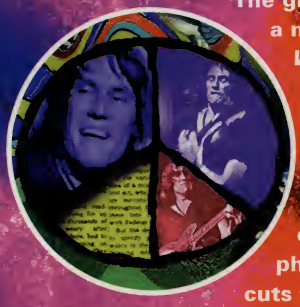

The greatest rock festival of all time is now a mind-blowing multimedia experience. *Woodstock: 25th Anniversary CD-ROM* is happening! Groove to blistering performances by The Who, Janis Joplin, Ten Years After, Jefferson Airplane and other greats. Dig searing studio versions of the Festival's hottest songs. Check out rare video interviews, evocative photos, and one-of-a-kind film clips. Catch cuts from the Academy Award-winning film. Play the game "Then & Now." Paint psychedelic images on your screen. Sing along with on-screen lyrics. Do your own thing. Experience the music, the memories and the magic of Woodstock.

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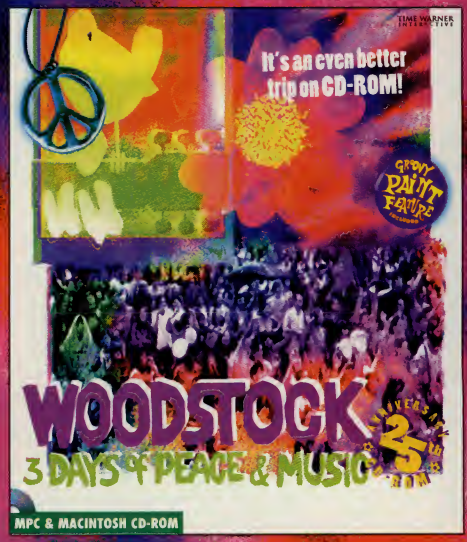

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seat," I had a good working diagnosis.

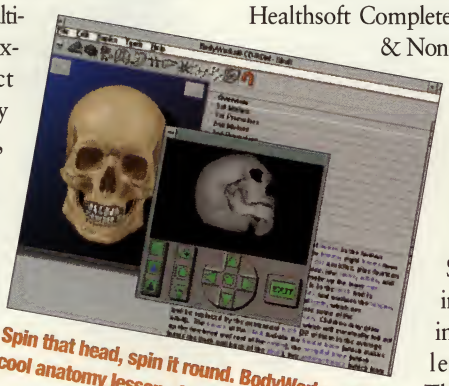
I also appreciated plenty of other stuff on this disc, including CPR instructions, a medical history function that recorded all my vital medical data (including my health insurance provider), a reference to 2,400 prescription and non-prescription drugs (once again, I was told that the drugs I'm taking don't interact well. Could that be the root of the Multimaniac's problems?), and information about common medical tests, poisons, and so on—all of it presented in vivid, sometimes frightening, color.

In fact, the only drawback that the Multimaniac sees to consulting Home Medical Advisor Pro is learning its amazingly disorganized user interface, but even that should be a snap compared to filling out an insurance claim form. (Pixel Perfect Software; 800-788-2099; CD for Windows, $99.95)

The Student Plan

College-age students, who, if the Multimaniac recalls correctly, are primarily interested in anatomy (whether in the classroom or out of it), will need a copy of BodyWorks 3.0—An Adventure in Anatomy.

The program doesn't provide any medical data—there are no videos of the Heimlich maneuver or cures for the common cold here, but even the Multimaniac learned a thing or two from its colorful anatomy lessons. BodyWorks is a sizzling multimedia creation that explores every aspect of human anatomy through still photos, digitized voice-overs, animations, digitized video, and unique interactive 3-D rotating views. The Multimaniac managed to while away many an hour spinning a wire-frame skull on his monitor screen, and surely every student in this great land could benefit from the same experience. (Software Marketing; 800-545-6626; CD for Windows, $69.95)



Spin that head, spin it round. BodyWorks offers cool anatomy lessons for students of all ages.

The Budget Plan

Finally, for those recession-weary, economically disadvantaged households that don't have a CD-ROM drive hooked up to their otherwise MPC-compatible Windows PC, there are a pair of non-elitist, floppy disk–based healthcare alternatives: Healthsoft Medical Dictionary & Family Health Guide, and Healthsoft Complete Guide To Prescription & Non-Prescription Drugs.

These largely text-based programs cover pretty much the same ground as the Mayo Clinic's and Dr. Schueler's discs, albeit in a less complete and, in the case of the latter, less graphic manner. The Medical Dictionary is just that—a dictionary of medical terminology (the Multimaniac uses it to translate his doctor's advice into something resembling English), plus a Children's Health Guide and a Family Health Guide.

I used the Children's Health Guide to figure out if my kid was likely to develop spots after an inadvertent exposure to

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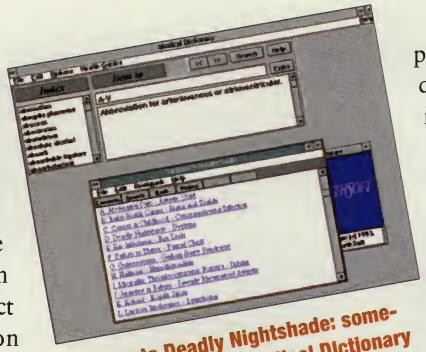
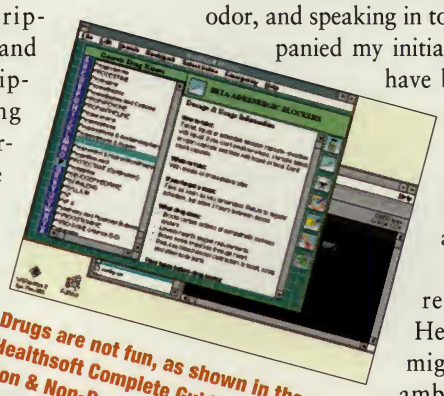
chicken pox. I got the information I needed, but it wasn't much fun. That's because the Children's Health Guide suffers from an atrocious disrespect for information browsers. Organized into alphabetical sections, as in Quarantine to Quinsy or Rabies to Rupture, it forces you to page through all the preceding articles to reach the particular one you want within a section. For instance, suppose I was concerned about my kid's head-banging but didn't want to do anything drastic like take away her grunge CDs. I'd have to make my way past articles on Halitosis, Hallucinations, and Hay Fever before getting to the relevant information. There is a Search function, but it works only if you already know the article you're looking for.



Dyslexia to Deadly Nightshade: somehow, the Healthsoft Medical Dictionary and Family Health Guide links the two.

The Multimaniac is much more impressed with the Healthsoft drug guide. Nearly all its information matches the findings from his extensive, privately sponsored drug research. The program presents concise, clear information about the use of more than 5,000 prescription and non-prescription drugs, including dosages, warnings, overdose information, side effects, drug interactions, and food interactions. (Once again, this program warned me about my two-drug regimen.) Together with Healthsoft's Medical Dictionary, it provides all the home medical information any non-CD-ROM-owning family could wish for. (Great Bear Technology; 800-795-4325; Windows; Healthsoft Medical Dictionary & Family Health Guide, $59; Healthsoft Complete Guide to Prescription & Non-Prescription Drugs, $69)



Drugs are not fun, as shown in the Healthsoft Complete Guide to Prescription & Non-Prescription Drugs.

Open Wide and Say Ahh

All these contradictions about my daily medications got me to thinking, and so I went back and did a little more research. Turns out that the blinding light, noxious odor, and speaking in tongues that accompanied my initial vision might not have been the workings of the Almighty after all, but simply a normal side-effect of my allergy medication. With that, I've realized that my Health Plan plans might be a bit too ambitious. Even the Multimaniac might need to see a real doctor once in a while. But I rest a little easier knowing I can get a digital second opinion anytime I like.

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State of the Game

E² REVIEWS, TIPS, AND STRATEGIES FOR THE HOTTEST PC, MAC, AND CD GAMES

Everything Old Is New Again

Game makers seem to have a lot of "re" on their minds these days: refurbish, retread, rehash, revisit, reconstitute, and occasionally even regurgitate.

You'll see some examples in this month's State of the Game. As in the movie industry, sometimes these sequels work, while others should have stayed in the can.

Practice makes perfect for Tsunami's Return to Ringworld, for example. The game may look a little old-fashioned, but good use of voice and creative puzzles make it worth the return trip. Similarly, Wing Commander Armada should attract a whole new audience with the addition of strategy and multi-player capabilities to the venerable space sim.

Unfortunately, many reruns show their age even after a face-lift. Interplay's CD-ROM version of SimCity, for instance, hits the streets with video clips and more colors, but the effect is more tacky than appealing—like an aging starlet with a face by Revlon and a body by Dupont. The far superior SimCity 2000 shows that game play is more important than video gimmicks or CD-ROM delivery.

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Sega Keeps On Rolling

Sega is so into flashy acronyms for its toys that it's getting hard to tell them apart. It won't get any easier this fall: in addition to a motherload of new titles for the Sega CD and CDX, there'll be a $150 32-bit add-on called the 32X.

The 32X is the precursor to Sega's end-all game platform, the Saturn, which is slated for release in 1995. For now, the 32X doubles the power of the Genesis and the Sega CD and CDX. Sega is billing the 32-bit peripheral as a gaming experience equal to the downtown arcade.

The machine gets its muscle from a pair of 32-bit RISC (Reduced Instruction Set Computing) chips working in conjuction with a digital video processor. In English, you'd say the system has two 32-lane highways for pumping code from the CD or cartridge to the system's number crunchers, while another processor dedicates itself to showing off video and animation. That means the 32X can display 32,768 colors and render 50,000 polygons per second. It also supports texture mapping and object scaling and rotation, and it holds 4MB of RAM. All that translates into faster, more colorful, more detailed graphics than you've ever seen on a Sega system before.

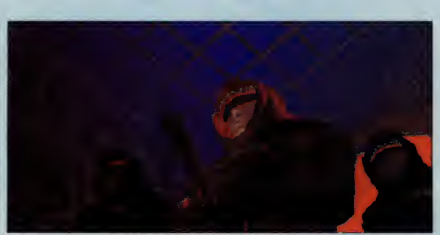
The 32X Sega CD game, Fahrenheit CD, will be available this fall. In this title you play a firefighter who saves people trapped in burning apartment complexes, train wrecks, and toxic chemical plants. Live actors provide all the game's action. A larger selection of 32X titles will appear next winter, including some of the new 32X sports cartridges and Sega CDs, such as NFL '95 and Virtua Racing Deluxe. Also look for the new Sega CDs Midnight Raiders and Wirehead to be 32X-compatible.

Non-32X Sega CD systems aren't being ignored, though. More than 40 new Sega CD titles are scheduled to come out during the next year, spanning the whole gamut from sports to role-playing to arcade and puzzle games. Look for some popular PC and Mac games to make the big move to Sega CD, such as Return to Zork, Myst, SimCity 2000, Flying Nightmares, Space Ace, Demolition Man, Lawnmower Man, and Spectre VR, as well as some Sega originals.

Sega's newest fighting game for the Sega CD, Eternal Champions, is one such newcomer, and it's bound to raise some eyebrows. Not only does it have great character and background art, endless moves, and 11

Scouting Report
Gaming News You Can Use

New game companies just keep cropping up, and **Take-2 Interactive** is one of the most interesting. The company was founded in part by former **InterOptica** folks who are looking to burn a high-tech image on consumer minds. Take-2's first game, **Star Crusader,** is due out this month. This space combat/strategy simulation takes you through more than 100 missions in 11 types of ships. Unlike some shoot-everything-that-moves combat games, Star Crusader also presents some moral quandaries, and your response has a tremendous impact on the game's outcome. The company also plans to release several other titles later this year, including **HELL: A Cyberpunk Thriller,** featuring the voices of Dennis Hopper and Grace Jones; **Assault on Everest,** an "edutainment voyage"; and **BUREAU 13,** a graphic adventure jaunt on the dark side.



Welcome to HELL. We're here to help you.

■

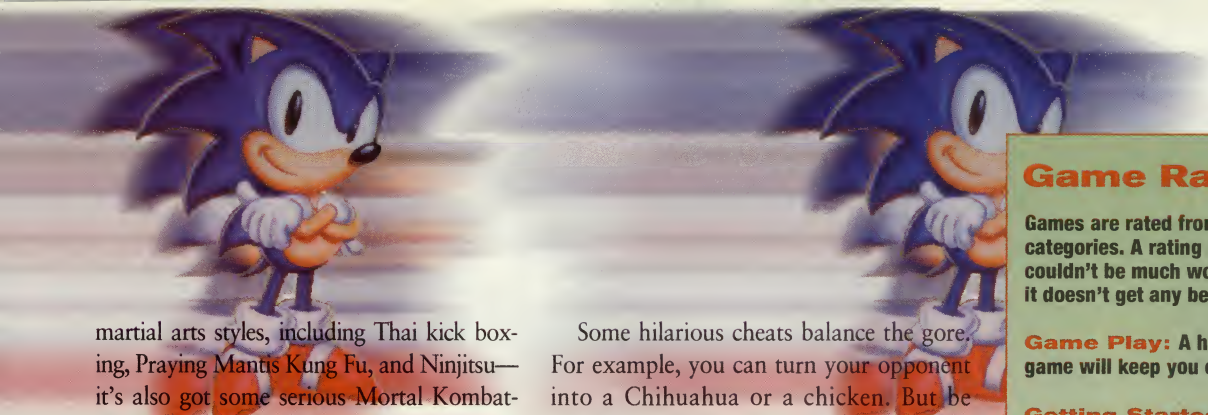
Sales Curve Interactive, which brought the world of *The Lawnmower Man* to PC screens, is working on a sequel for release before Christmas. **Cyberwar** once again takes place in the virtual world of the VSI supercomputer. Dr. Angelo's goal this time is to destroy the weapons that remain from his previous battle with Cyberjobe. The game promises even more of the digitized movie footage and full-screen 3-D animations that made the original Lawnmower Man such a looker—three CD-ROMs more, in fact.

■

"Star Trek: The Next Generation" lives on. **Spectrum Holobyte** has signed up eight of the show's actors for its CD-ROM game **Star Trek: The Next Generation "A Final Unity,"** which is due for release this year. Patrick Stewart (Jean-Luc Picard), Michael Dorn (Lt. Worf), and Brent Spiner (Lt. Commander Data), among others, will supply voices for characters in the game.

■

Fans of **Sir-Tech's Realms of Arkania** series: Rejoice! **Star Trail,** the sequel to the popular **Blade of Destiny,** is due out before Christmas.



martial arts styles, including Thai kick boxing, Praying Mantis Kung Fu, and Ninjitsu—it's also got some serious Mortal Kombat-like blood and gore. Three kill sequences are available during each round: sudden death, vendettas, and cinekills—animated sequences that graphically show your victims being slaughtered. (One cinekill shows a character turn into an oversized cobra and then pierce through the torso of an opponent.)

Some hilarious cheats balance the gore. For example, you can turn your opponent into a Chihuahua or a chicken. But be warned: Colonel Sanders' best can retaliate with lightning-fast talon kicks to your jaw. There's also a cheat that pits you against Senator Lieberman (PA), the main proponent of video game ratings.

—Bill Meyer

NEW RELEASES FOR SEGA CD/CDX

ACTION/ADVENTURE

Fall 1994
- Bike Messenger (Digital Pictures)
- Cadillacs & Dinosaurs (Rocket Science)
- Dai Bang (Digital Pictures)
- Darkride (Rocket Science)
- Flashback (U.S. Gold)
- Lethal Enforcer 2 Gun Fighters (Konami)
- Loadstar (Rocket Science)
- Mad Dog II: The Lost Gold (American Laser Games)
- Mary Shelley's Frankenstein (Sony Imagesoft)
- Panic (Data East)
- Rise of the Robots (JVC)
- Scavenger 4 (Psygnosis)
- Sid & Al's Incredible Toons (Dynamix)
- Surgical Strike (Sega)
- The Adventures of Batman & Robin (Sega)

Winter 1995
- Samurai Showdown (JVC)

SPORTS

Fall 1994
- ESPN Sunday Night NFL (Sony Imagesoft)
- Ivan Stewart's Super Off Road Baja 1000 (Williams Entertainment)
- NHL All-Star Hockey (Sega)
- One On One Basketball (Digital Pictures)
- World Cup Golf (U.S. Gold)

Winter 1995
- ESPN Basketball (Sony Imagesoft)
- NHL '95 (Electronic Arts)

STRATEGY

Fall 1994
- Trivial Pursuit (Parker Brothers)

Game Ratings Key

Games are rated from 1 to 5 in four categories. A rating of 1 means it couldn't be much worse, and a 5 means it doesn't get any better.

Game Play: A high score says this game will keep you coming back for more.

Getting Started: The game loses points if you'll spend more time reading manuals and learning commands than playing.

Graphics: Image isn't everything, but hot graphics can make even mediocre games worth a second look.

Value: The higher this rating, the better you can feel about getting out your wallet.

If you see our bug, you might notice them in the game, too.

Look here for hints and tips to help you get started or keep you going in the tough spots.

Sometimes our reviewers find "undocumented" tricks that help tame killer titles.

This lists a game's minimum system requirements, including processor, memory, and video needs.

You and the six members of your party must travel through a world where fear of the orcs has been eclipsed by fearsome animosity between elves and dwarves.

■

Game soundtracks haven't always been music to the ears, but that seems to be changing. **Thomas Dolby's** company, **Headspace,** is doing soundtracks, and **Alien Sex Fiend** is supplying the background tunes for **Ocean of America's** hot release, **Inferno.** Now **Power of Seven Music & F/X,** a new company formed by members of dance-chart toppers **Information Society** and **Psykosonik,** is offering its skills to game developers. One of the first games to be graced with Power's notes will be the 3-D action title **Cyclones,** due out soon from **Strategic Simulations.**

■

If you're still in love with your old 286-based PC but can't seem to find any games that will run on it, take a look at **PT Boat Simulator** and **Sub Battle Simulator** from **Alliance Interactive Software.** Both titles, formerly available in Macintosh versions, now include digitized sound, speech, and enhanced graphics—but still run on a 286 with only 640K of RAM. They won't have the impact on your wallet that system-sucking 386- and 486-only titles do, either: Both retail for less than $25 each.

■

If you *really* want to bog down the network at the office, you might want to get some copies of the CD-ROM version of **Corridor 7: Alien Invasion** from **Capstone Software.** This latest release of Corridor 7 doesn't stop by just adding more players; it also increases the number of levels, weapons, and enemies and surrounds everything with a high-quality CD soundtrack.

The players behind Power of Seven Music & F/X.

GAME OF THE MONTH

WIN CD

Millennium Auction

By James Daly

It's art collecting—21st-Century style.

The future gets a pretty bum rap. In everything from games to movies, the next millennium is typically depicted as either a burned-out wasteland filled with savage cyborgs or a bleak and humorless place ruled by a crushing central government.

Eidolon opts for the latter in Millennium Auction, an intriguing new game that takes you deep into the 21st century. The world government has clamped down on private ownership of rare art. The only buying opportunity for serious collectors comes during sales at the World Body Auction House, where the glitterati converge for large-scale purchasing and wholesale backstabbing.

You compete on a level playing field. Only your greed will tilt the scales.

You and as many as three other players (who can be computer-controlled, if you want to play solo) must match wits and bank accounts as you vie for bizarre *objets d'art*. Despite its reliance on the future tense (or perhaps, the tense future), Millennium Auction is an old-fashioned game of bidding, bluffing, buying, and selling not unlike the classic board game Masterpiece. Although Millennium Auction propels you 100 years into the future, you'll immediately recognize all the old stereotypes. Your choice of animated characters includes a sardonic German, a haughty New Yorker, a wily Japanese entrepreneur, a suave Saudi, and even a funky soul mama.

The best thing about Millennium Auction is its extraordinary set design. Characters are rendered in wonderfully crisp 3-D graphics that include pivotal joints and the digitized voices of live actors. The tradeoff is that you must bring out the big processing guns to get this puppy humming. Eidolon recommends at least a 33MHz 386SX system. But a beta version run on a 50MHz 486DX/2 was s-l-o-o-o-w. Unless Eidolon tightens up the code considerably in the final version, you're going to want to get your hands on a high-powered PC.

Play begins when the bidders gather in the reception gallery. As you roam the different rooms, you uncover clues that could affect the market value of the various treasures. These can be as obvious as a TV news broadcast or as sneaky as listening in on private conversations. Oddly enough, a wizened old janitor named Zeke is also a fount of inside information about the rarified world of art collecting.

Then you're off to the auction room to bid on everything from splashy Van Gogh oils to former President Clinton's saxophone and the last IBM mainframe in the world. During breaks, log onto the ubiquitous Info-Link, a network where you can investigate competitors, sell your possessions, check your portfolio, or borrow some cash. The winner is the one who ends up with the most valuable portfolio once all the art has been auctioned.

Millennium Auction is a clear pointer toward a new breed of games: imaginative, crisply rendered, and with nary an explosion or deadly laser beam in sight. I just hope they all don't take place in the future. It sounds far too depressing. (Eidolon; 718-884-7095; CD for Windows, $69.95)

☞ After returning from Zeke's lair, do another quick scan to make sure more clues haven't appeared in the reception area while you were gone. ☞ Keep a close eye on your bank account. If you get caught up in the frenzy of the auction and your bidding exceeds your cash reserve, you'll be unceremoniously shut out of the action. ☞ When shoring up your financial reserves, consider selling several pieces of art together as a package. You may get a better price.

PSST!

386SX/33, 4MB RAM, Windows 3.1, Super VGA, MPC-compliant sound card, mouse, double-speed CD-ROM.

GAME PLAY:	4
GETTING STARTED:	3
GRAPHICS:	4
VALUE:	4

Gorgeous graphics, a dose of art history, and the clever second-guessing that comes with auction bidding make Millennium Auction a great way to pop off a few hours.

SYSTEM SHOCK

REAL WORLD. REAL TIME. REAL TERROR.

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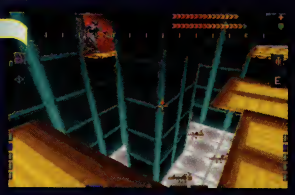

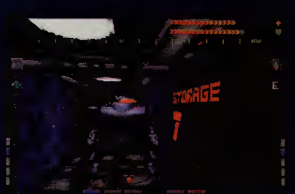

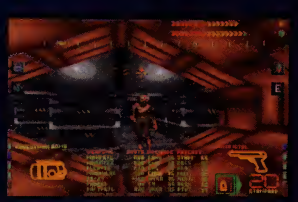

Chaos reigns aboard the space station *Citadel*. Crew members are now horrible genetic mutations. Cyborg security robots roam the corridors bent on destruction. At the heart of it all is SHODAN, the ruthless super-computer that has seized control of all station operations. Will you be able to fight your way through and destroy SHODAN – from within?

- Explore a totally immersive 3-D world with sophisticated physics. Jump, lean around corners, climb ledges, crawl through shafts – even fly with rocket boots – all from a lightning-fast first-person perspective.
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- "Jack in" to the computer itself to steal information, hack security systems and grapple with cyber-creatures enslaved to the maniacal SHODAN.

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Circle 4 on Reader Service Card

Return to Ringworld

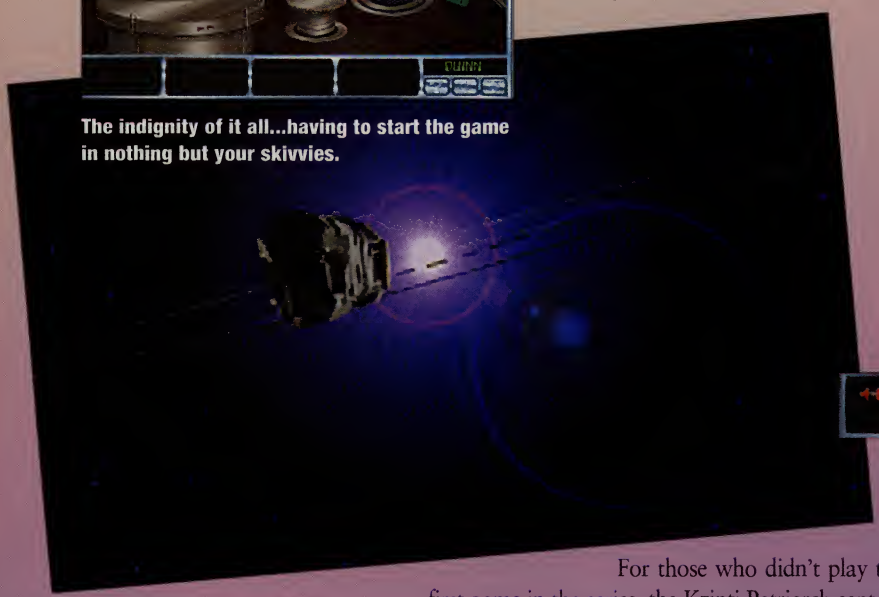
You play as three characters—Quinn, Miranda, and Seeker.

By Rick Raymo

Pop open your CD-ROM drive and get ready for some serious fun. Return to Ringworld from Time Warner Interactive and Tsunami Media will slap your synapses into hyperdrive.

Fans of Larry Niven's *Ringworld* series will recognize the "Known Space" setting and the giant ring that completely circles its star. Novice Ringworlders will get comfortable in no time. With three main characters, scads of great puzzles and mazes, an astounding number of digitized voice clips, and a fairly comfortable interface, you're going to put in the hours on this one.

The indignity of it all...having to start the game in nothing but your skivvies.



Welcome to Ringworld space.

For those who didn't play the first game in the series, the Kzinti Patriarch sent an armed hyperdrive starship to take out the Puppeteers' Fleet of Worlds. Seems the Patriarch found out that the Puppeteers helped Humanity during the Man-Kzin wars and decided to repay them with extinction.

Enter Quinn McQuarry (human male), Miranda Rees (human female), and Seeker of Vengeance (Kzin male). This unlikely trio blew the Patriarch's starship into space-jetsam while managing to tick off the Kzin, Humans, and Puppeteers in the process—and now they're on the run. In their stolen hyperdrive research vessel, the Lance of Truth, they must return to Ringworld and lie low.

Surprise. Even Ringworld's not safe. Once there, they have to find a way around the United Nations' Amalgamated Regional Militia and discover Ringworld's secret in time to unhinge the plans of a bad-guy megalomaniac.

The puzzles range from middling to tough. First you have to get the quantum drive back on line and recover a letter from Louis Wu that contains the coordinates to Ringworld. You lose Miranda, go ballooning, cross vast deserts, hobnob with vampires, and generally puzzle-fest while controlling all three characters separately.

The interface is a typical mouse-operated, right-click style with icons. You switch control of the characters quite easily by clicking on a Head icon.

The game play is mostly puzzle-based—complete each puzzle by finding the right items and using them in the proper order. It's best to find a need before collecting a gadget, because some objects aren't useful. The mazes may take a typical gamer some time to complete, but they're worth it.

Graphically, Return to Ringworld isn't cutting-edge, 11th Hour kind of stuff, but it's comfortable and convincing. On the plus side, Time Warner says there are more than 1,500 lines of speech in the game, and I believe it. The voices aren't the least bit grating and add plenty of realism to the game play. Musically, the score is highly forgettable, but if you don't like the tunes, you can turn them down or off.

Return to Ringworld is a very playable game that you don't have to be a Ringworld junkie to enjoy. (Time Warner Interactive; 800-482-3766; CD for DOS, $69.95)

☞ At the outset, talk to Miranda and Seeker each time you get stuck. ☞ Pick up only the items you actually need. ☞ Laser Diffusion spray helps. ☞ The multipurpose clamp disables the laser. ☞ You need to find ten items on the Space Port ledge. ☞ When ballooning, ride until you hit the highest altitude at the upper right corner of screen, then head down as fast as you can.

PSST!

386/25, 640KB RAM, DOS 5.0, 256-color VGA, sound card, Microsoft-compatible mouse

GAME PLAY:	
GETTING STARTED:	
GRAPHICS:	
VALUE:	

Overall a fine game with depth and difficulty. It suffers from graphical mediocrity, but the game play more than makes up for it. Should give you a solid dollop of fun for your money.

ENHANCED CD-ROM

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Quest for the Orb

Join Rif the fox and his companions Okk and Eeah on the adventure of YOUR life! Inherit the Earth will transport you to a world of beauty and intrigue! The Orb of Storms has been stolen, and Rif is accused. You have only days to help Rif get to the bottom of the mystery of the missing Orb. Your journey takes you to the Wild Lands, through hostile territories and ultimately to the ancient ruins of the legendary Humans.

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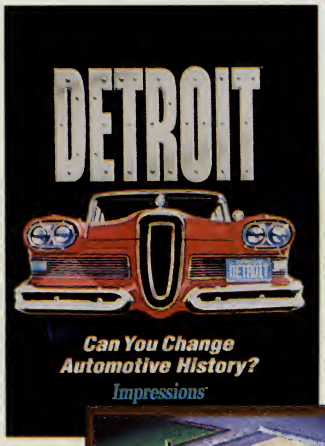
Detroit

By David Israels

You'd better know the difference between a hydraulic drum and a timpani if you want to recreate the Mustang.

If your idea of fun is to fire up Excel and yell "Vroom, vroom" at the screen, then you'll just love Detroit. Otherwise, you're likely to be disappointed with this new strategy game-cum-economic simulation from Impressions.



At first glance, Detroit doesn't look like a lemon. You begin the game in 1908 armed with an initial car model, a factory, a sales office, and an amount of cash that varies depending on the difficulty level you select.

For the next hundred years, which are broken up into monthly "turns," you control almost every aspect of your car company—facilities, pricing, supply lines, research, advertising campaigns, the design of your cars, and more. You can even put your hard-won profits in the bank to earn interest.

But once you look under the hood, you'll realize that Detroit's design fails to deliver. The game quickly becomes tedious—unless you have the soul of an accountant or a car fanatic.

Not much happens at the main screen, but you can use it to navigate to other parts of the game.

After you design a new car model, your engineers give it a road test to see how it holds up.

Research into new technologies is one of the keys to being successful in Detroit.

Detroit's primary design flaw is the lack of a central visual metaphor. In SimCity, for instance, the cityscape creates a seamless connection between game play and the game's interface. Detroit does have a main factory screen, but almost nothing happens there. You're cast adrift for much of the game, spending most of your time wading back and forth through seemingly endless layers of menus and screens while doing nothing more interesting than entering lots of numbers.

Other design flaws make all that data entry downright dreary. For example, you can't hire, fire, and assign workers in one location. Instead you have to navigate through multiple menus, frequently more than once.

And too often you're navigating blindly, not knowing whether the figures you're using are correct. That's because the folks at Impressions apparently adhere to the ignorance-is-fun theory of game design, providing little help in the manual or the game itself about making important strategic decisions.

What little feedback the game offers feels static and comes primarily from 15 reports filled with charts and bar graphs. Only the monthly newspapers are a step in the right direction.

The game also begs for an interactive human element. For instance, company managers or major stockholders might have popped up on the screen to let you know when you've committed a major blunder or done a good job.

In the end, Detroit doesn't even offer much chrome, with commonplace VGA graphics and limited use of sound. About all you get is an encouraging engine roar when you test a new car design. Sadly, Impressions has labored mightily only to produce the Edsel of this year's strategy games. (Impressions; 203-676-9002; DOS, $69.95)

The game's initial release contained a bug that could cause the simulator to go haywire. At press time, Impressions said it was working on a fix.

286, 640K RAM, DOS 3.0, VGA, Microsoft-compatible mouse

GAME PLAY:

GETTING STARTED:

GRAPHICS:

VALUE:

Detroit is essentially a spreadsheet in search of a game. Unless you're an accountant or car fanatic, you'll probably find this one disappointing.

TECHNOLOGY UPDATE

900 MHz breakthrough!

New technology launches wireless speaker revolution...

Recoton develops breakthrough technology which transmits stereo sound through walls, ceilings and floors up to 150 feet.

Breakthrough wireless speaker design blankets your home with music.

By Charles Anton

If you had to name just one new product "the most innovative of the year," what would you choose? Well, at the recent *International Consumer Electronics Show*, critics gave Recoton's new wireless stereo speaker system the *Design and Engineering Award* for being the "most innovative and outstanding new product."

Recoton was able to introduce this whole new generation of powerful wireless speakers due to the advent of 900 MHz technology. This newly approved breakthrough enables Recoton's wireless speakers to rival the sound of expensive wired speakers.

Recently approved technology. In June of 1989, the *Federal Communications Commission* allocated a band of radio frequencies stretching from 902 to 928 MHz for wireless, in-home product applications. Recoton, one of the world's leading wireless speaker manufacturers, took advantage of the FCC ruling by creating and introducing a new speaker system that utilizes the recently approved frequency band to transmit clearer, stronger stereo signals throughout your home.

150 foot range through walls!

Recoton gives you the freedom to listen to music wherever you want. Your music is no longer limited to the room your stereo is in. With the wireless headphones you can listen to your TV, stereo or CD player while you move freely between rooms, exercise or do other activities. And unlike infrared headphones, you don't have to be in a line-of-sight with the transmitter, giving you a full 150 foot range.

The headphones and speakers have their own built-in receiver, so no wires are needed between you and your stereo. One transmitter operates an unlimited number of speakers and headphones.

Recoton's transmitter sends music through walls to wireless speakers over a 75,000 square foot area.

Crisp sound throughout your home. Just imagine being able to listen to your stereo, TV, VCR or CD player in any room of your home without having to run miles of speaker wire. Plus, you'll never have to worry about range because the new 900 MHz technology allows stereo signals to travel over distances of 150 feet or more through walls, ceilings and floors without losing sound quality.

One transmitter, unlimited receivers. The powerful transmitter plugs into a headphone, audio-out or tape-out jack on your stereo or TV component, transmitting music wirelessly to your speakers or headphones. The speakers plug into an outlet. The one transmitter can broadcast to an unlimited number of stereo speakers and headphones. And since each speaker contains its own built in receiver/amplifier, there are no wires running from the stereo to the speakers.

Full dynamic range. The speaker, mounted in a bookshelf-sized acoustically constructed cabinet, provides a two-way bass reflex design for individual bass boost control. Full dynamic range is achieved by the use of a 2" tweeter and 4" woofer. Plus, automatic digital lock-in tuning guarantees optimum reception and eliminates drift. The new technology provides static-free, interference-free sound in virtually any environment. These speakers are also self-amplified; they can't be blown out no matter what your stereo's wattage.

Stereo or hi-fi, you decide. These speakers have the option of either stereo or hi-fi sound. You can use two speakers, one set on right channel and the other on left, for full stereo separation. Or, if you just want an extra speaker in another room, set it on mono and listen to both channels on one speaker. Mono combines both left and right channels for hi-fi sound. This option lets you put a pair of speakers in the den and get full stereo separation or put one speaker in the kitchen and get complete hi-fi sound.

These wireless stereo headphones have a built-in receiver.

Factory direct savings. Our commitment to quality and factory direct pricing allows us to sell more wireless speakers than anyone! For this reason, you can get these speakers far below retail with our 30 day *"Dare to Compare"* money-back guarantee and full one year manufacturer's warranty. For a limited time, the Recoton transmitter is only $69. It will operate an unlimited number of wireless speakers priced at $89 and wireless headphones at $59 each. Your order will be processed in 72 hours and shipped UPS.

Recoton Transmitter (you must have a transmitter to operate speakers and headphones).....**$69** $7 S&H

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Channel Separation: 30 dB
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10 watts/channel RMS amps
Frequency Response: 50 Hz-15 KHz

Don't take our word for it. Try it yourself. We're so sure you'll love the new award-winning Recoton wireless speaker system that we offer you the **Dare to Compare Speaker Challenge.** Compare Recoton's rich sound quality to that of any $200 wired speaker. If you're not completely convinced that these wireless speakers offer the same outstanding sound quality as wired speakers, simply return them within 30 days for a full "No Questions Asked" refund.

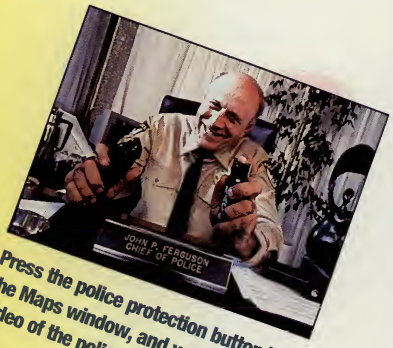
Recoton's Design and Engineering Award

DOS
CD

SimCity Enhanced CD-ROM

By David Israels

The creators of Interplay's new SimCity Enhanced CD-ROM say they have "the Hollywood know-how to make entertaining multimedia." Maybe. But all this disc proves is that they have the know-how to produce high-end shovelware for a multimedia market so hungry for products it will buy almost anything.



Press the police protection button in the Maps window, and you'll get a video of the police chief or crime scene.

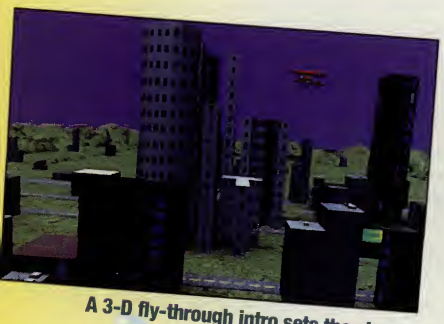
Interplay licensed the original SimCity, now called SimCity Classic, from Maxis and shoved it onto a CD-ROM with lots of additional sound and that holy of holies—video. Unfortunately, the ROMing of SimCity does little to enhance the playing of the game.

In case you've never heard of SimCity, it's an incredibly popular simulation that lets you design and govern the city of your imagination. In the five years since Maxis published the original game, it has become a classic and sold more than 2 million copies. It was reborn earlier this year when Maxis released SimCity 2000, which has spectacular new three-dimensional graphics and scads of additional ways to influence city development.

The new and improved graphics look great, but they work best on a 486 machine.

But in Interplay's version, there's not much joy in playing the old SimCity. Part of the problem stems from the conversion to 256 colors and a higher screen resolution. The new graphics look great, but without a fast PC the city terrain scrolls at a snail's pace, and the mouse moves as though it were mired in Jell-O. Only 486 owners need apply.

More important, the multimedia gimmickry interferes with game play. While you're in the middle of designing a neighborhood, laying down zones, and adding traffic arteries, the screen will suddenly turn gray and freeze for a couple of seconds, then some snippet of unbidden video advice will appear.



A 3-D fly-through intro sets the stage.

The same problem occurs when analyzing your city in the Maps window. Click on the police protection button. Before you get a look at your police coverage, you're confronted with another frozen screen while the disc loads a video clip of a silly lecture from your police chief. Disasters bring up a perky SimAction News Anchor reporting for SimNewsLine. But the thin humor in these reports quickly becomes tiresome.

Luckily, all these videos can be clicked away. But the constant interruptions become so annoying, you'll simply want to shut off the video entirely. The audio advice is less meddlesome, but it too becomes annoying after constant repetition.

You can add $20,000 to your funds by pressing the shift key and typing "fund." But if you get greedy too often, you'll cause an earthquake.

CHEAT

386SX, 2MB RAM, DOS 3.3, Super VGA

The video is less intrusive when you use the Peek View Icon. As a reward, the icon will appear, allowing you a faint-humored peek into the lives of your SimCitzens: a couple plays patty cake, some babe shaves her legs, a kid opens his mouth to scream but only jungle sounds come out.

With so much effort devoted to multimedia, the game is oddly lacking in basics. There's neither music nor a terrain editor, which is a standard part of the SimCity Classic package. In the end, SimCity Enhanced CD-ROM shows just how tough it is to teach an old dog new multimedia tricks. (Interplay; 1-800-969-4263; CD for DOS, $59.95)

GAME PLAY:	2
GETTING STARTED:	3
GRAPHICS:	3
VALUE:	1

New multimedia razzmatazz gets in the way of this classic game. Stick with SimCity Classic or move up to SimCity 2000.

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Thoroughly enchanting and highly informative...A whale of a good time...★★★★
Multimedia World *January, 1994*

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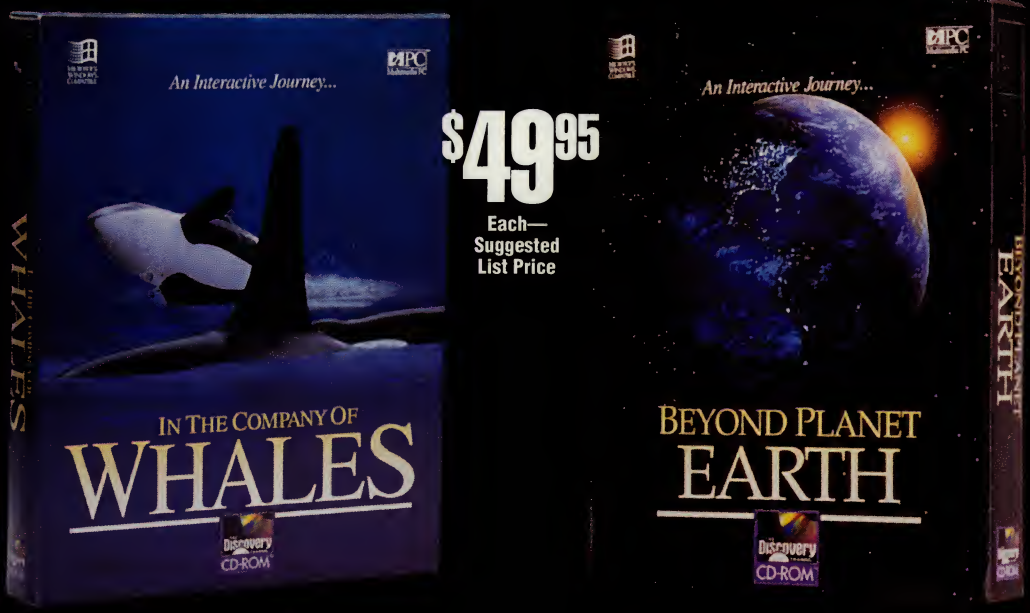
Electronic Entertainment *February, 1994*



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Hollywood Mogul

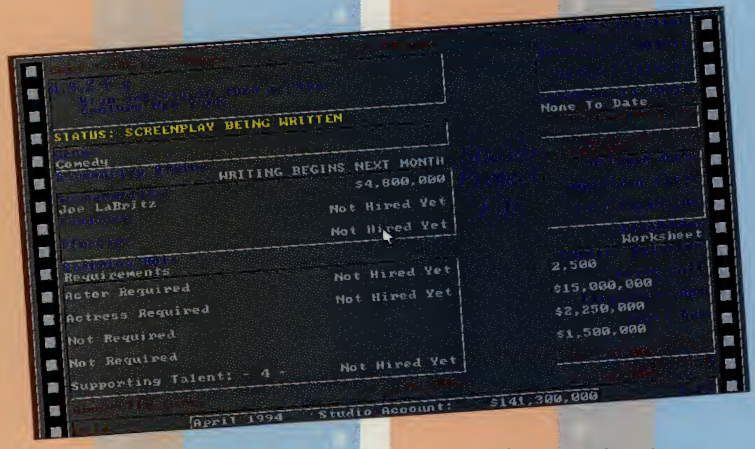
You can work on your movies, check your finances, or go shopping.

By Fredric Paul & Pamela Robinson

Do you love movies? Do you love movies about movie making? Did you see *The Player* at least three times? Do you think of movie stars and directors the way car guys think of engines and transaxles?

If so, then you're ready to be a Hollywood Mogul. In this text-based simulation, subtitled Run Your Own Hollywood Studio, it's up to you to produce movies that will make you millions.

Written by former screenwriter Cary DeVuono with a keen eye and a wicked wit, Hollywood Mogul challenges you to control every aspect of making pictures, from choosing scripts, hiring producers, and negotiating with directors and actors to setting production budgets, release dates, and marketing strategies. You even get to send losers into turnaround hell, the state of limbo where "yes" means "no"—but not always. The program comes with fake names for the talent, but a special names editor lets you enter the actors and directors everyone knows or make your friends famous if you want to.



Producing a movie isn't easy. You have to write the screenplay, hire the creatives and the talent, and budget the production and the release.

Month by month, you watch the effects of your decisions on the studio's bottom line. If things go well and you churn out hit after hit, you can buy expensive L.A. real estate, overpriced art, or even a private jet. If things go badly and you overspend on a series of box-office dogs, be prepared to mortgage the studio to finance your releases. You can always fire everyone responsible for a turkey, but that costs money, too.

Either way, it's fun to play the role of a cell-phone-toting, lunch-doing, meeting-taking Michael Eisner or Sherry Lansing. And it's satisfying to see your pet projects rake in the big bucks. Just be sure to deal with all the minutiae, and don't get frustrated by all the details you need to handle every month. If you really had your own studio, you'd have legions of flunkies and yes-men to take care of all this stuff.

The game ends when you release 25 movies or bankrupt your studio. Four difficulty settings control how much money you start with, and thus how much leeway you have. The simulation is relatively accurate, but it combines and simplifies a number of categories in the interest of playability.

Just don't expect Hollywood Mogul to be an example of how modern computer games are taking on movie-style production values. The initial release is pretty much a straight-text experience and could just as easily have been a book as a game. In fact, the 126-page manual is almost as much fun as the game itself.

To bring Hollywood Mogul to the level of top-rated sims like Maxis's SimCity 2000 would require adding audio and video clips (you know, like movies), graphics, and animation to DeVuono's quips, barbs, and movie-biz jargon. Those multimedia enhancements, due next year in a CD-ROM multimedia version, might lead to a truly great simulation. As it is, Hollywood Mogul, like many movies, has a great idea and a great script, but a poor execution—it's a simulation in which you have to imagine the bells and whistles. (DeVuono DeVuono Games; 800-350-5550; DOS/Windows, $59.99)

PSSST!

☞ The screenplay's the thing. Do everything you can to make it right. ☞ Don't lowball the talent in negotiations. They'll walk. Skimp on perks if you have to, and offer extra points to close a deal. ☞ Be sure to open your movies in the right number of theaters. Small films with low budgets can get by with 500 screens. Big pictures need thousands of theaters to make back their investments.

286, 600K RAM, VGA

GAME PLAY:
GETTING STARTED:
GRAPHICS:
VALUE:

Snappy writing and a terrific topic will pique your interest, but technologically this game is still at the shareware level.

Coming soon.

Quarantine

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We make this lovely advertisement and you drool all over it. Why do we bother?

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Alien Legacy

By John Sauer

You need power plants to run factories and research labs as well as shelter for your robots and colonists.

Attention all empire builders, megalomaniacs, and would-be pioneers: The galactic frontier is wide open and ready for the taking.

In Dynamix's Alien Legacy, the name of the game is interplanetary colonization. And once you get past the beautiful graphics, haunting music, and well-designed interface, you'll find one excellent strategy game.

As the newly awakened captain of the seed ship Calypso, you have three missions: to establish a civilization in the Beta Caeli star system; to find out why the colonists on board the Tantalus, the ship that preceded yours, didn't survive; and to prepare for the eventual coming of the alien horde that destroyed earth.

Before descending in a sector, use the scanners to locate deposits of minerals and energy.

Piloting exploration craft can give you greater appreciation for the planets you want to colonize—and reveal valuable objects.

You begin the game with one colony already in place and carte blanche to add robots, people, habitats, power plants, factories, and labs. As you colonize and expand your holdings, dozens of scenarios unfold that deliver new information and new challenges. Many events, especially calamities, are accompanied by frantic reports from your advisors and colorful animated sequences complete with appropriate music.

While you expand your domain, not only will you find clues as to why the Tantalus failed, but you'll also make other discoveries about the planets you've colonized. These discoveries can lead you to invent some fairly awesome technologies that will prove useful as the game progresses.

You control the game's various functions from the bridge of the Calypso. Five advisors, each skilled in the fundamentals of colonization, are available to give you status updates and advice.

The mouse-controlled interface is simplicity in action. You can reach any game function with a few quick clicks. Alien Legacy further sweetens the pot by putting you at the controls of exploration ships during planet-side missions, not the least of which involves dropping plasma bombs on enemies. The planetary surface graphics are particularly well executed, making for an enjoyable change from the rest of the game's standard direct-them-and-they-do-it style of play.

Even the Options screen is worth mentioning: Faces of the game's developers morph one into the

Click on your advisors to see what's happening in their domain and to get advice.

next while you adjust the sound, tweak the play speed, or save a game. All the floppy version lacks is the characters' voices, but a CD-ROM version, complete with the verbal icing, is planned for release this month.

Alien Legacy is a rare mix of good graphics, good music, and most important, good game play. But be sure to set aside at least 120 hours to reach the conclusion—more than once I sat down for an evening of interstellar empire building, and ended up still at the keyboard when the roosters crowed. (Dynamix; 800-757-7707; DOS, $45)

GAME PLAY:	★★★★
GETTING STARTED:	★★★
GRAPHICS:	★★★★
VALUE:	★★★★

Alien Legacy delivers good game play, good sound, and good graphics. Though the interface is easily mastered, you should read the manual to help you establish game-winning strategies.

☞ Exploring planetary surfaces in first-person view is a great ride, but it eventually slows down game play. You can search much more efficiently by piloting the craft from an overhead view.

☞ After you have established a space station, make your first planetary exploration for energy sources. This energy store will give you the freedom to explore further to find sources of ore and other worthwhile discoveries. ☞ Prometheus is rich in minerals—but pay close attention to the scientific and archeological discoveries there, especially those concerning meteors. ☞ Evaluate each scientific proposal carefully before you try to build a new invention. Some of them are too good to be true. ☞ Balance the advice you get from each advisor, especially science and military. Hawks and doves, hawks and doves.

PSST!

386/20, 4MB RAM, DOS 5.0, VGA, Microsoft-compatible mouse

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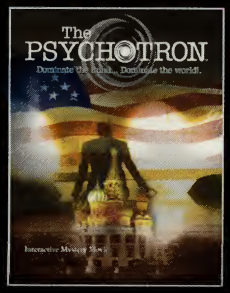

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Russian 6 Pak

By Michael S. Lasky

Keep single-fused bombs to one side of the screen, or they'll prevent other bombs from connecting to make the needed big bang.

No, Russian 6 Pak isn't a half-dozen Moscow brewskis. It's a collection of six brain-teasing arcade games in the Tetris tradition.

Much of Tetris' appeal lies in its devious simplicity. Russian 6 Pak's games ensnare you with the same tactic: While each is easy to play, they're all devilishly difficult to win. So you play again and again because you know you can finish if you play just *once* more.

In Flying Pictures, Alice can throw fruit from a vertical direction by climbing to the top of the ladder. The fruit will ricochet to the column below the top markers.

Master of Bombs has the strongest resemblance to Spectrum Holobyte's Tetris. Hand grenades with randomly placed fuses fall from the top of the screen. Using the cursor keys or the mouse, you position grenades at the bottom of the screen so that one grenade's fuses connect with another's.

When a detonator drops, you try to position the best possible grenade, or set of grenades, which then explodes, leaving you room to keep playing. If you successfully keep the ammunition from reaching the top level, you continue on to the more difficult rounds, where nuclear bombs drop like confetti on New Year's Eve.

Flying Pictures is equally challenging. Alice doesn't like her fruits and vegetables, so she's out to destroy them. She does this by climbing a ladder and using the produce as ammunition. If her organic missile hits a like target, both disappear from the screen. But if she pastes the wrong plant, Alice loses one of her five lives. Knock off enough targets, and she moves on to the next level. Your eye and mouse coordination are tested to the limit here.

Fast Ring is a sort of connect-the-dots for electricians. Dots appear on the screen in random, and often inconvenient, locations. You score points and add time to your "death clock" by connecting the dots with wires. Once you make a connection to your starting dot, all the previous connections short out, and precious seconds are added to the timer.

Lineman is a plumber's version of Fast Ring. The idea is simple: connect the pipes until you close the loop and eliminate the pieces. This one is vexing from the start, and made even more infuriating because new pipes are added every few seconds. When they fill up the screen completely, you lose.

Taking a cue from Greek mythology, Crete requires great mental agility to figure out how to get King Theseus to the other end of a labyrinth by shifting tiles.

286, 640 KB RAM, MS-DOS 3.1, VGA

The sixth game, Shadows, is the only disappointment. This Asteroids/Pong takeoff provides limited fun, mainly because the cursor keys give little control.

But five-out-of-six makes Russian 6 Pak a habit-forming success, testing our noggins while delivering some gentle arcade action. (Interplay; 800-969-4263; DOS, $39.95; Windows, $29.95)

GAME PLAY:	4
GETTING STARTED:	5
GRAPHICS:	3
VALUE:	5

Six Tetris-tinged games in a single package make for a noteworthy value, when five of the six are addictive fun, it makes for a winner.

Designed to meet your need for speed and control, the Super Warrior is the first available from a new line of IBM compatible game controllers called the Lethal Series by QuickShot. The Super Warrior is ergonomically designed with four positive response fire buttons, a smooth tracking bio grip, and high speed auto fire capability. And with a built in throttle control for flight simulation games, you'll definitely get that extra thrust you need to take on any enemy.

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D-Day: The Beginning of the End

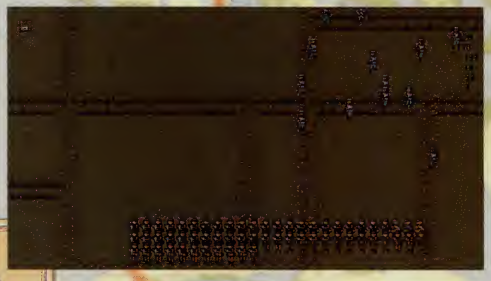
By Barry Brenesal

D-Day: The Beginning of the End lets *you* write the story of the Allied invasion on the beaches at Normandy. You lead either the Allies or the Germans, and your judgment calls determine which side will control Western Europe—and the margin of its victory.

D-Day is a considerable improvement over The Blue & The Gray, the last release in this Impressions series. But it is still less detailed and authentic than comparable releases from Strategic Studies Group and Three-Sixty Pacific. For example, battles are resolved one at a time on a single defended square, rather than simultaneously at the end of a turn, over ground covered by all attacking and defending units. As a result, D-Day's approach provides a large advantage to any attacker, whose force never comes under attack itself.

The strategic screen in D-Day is where most of the WWII action takes place, as you attack or defend the beaches of Normandy.

Check out detailed battle strength lists for aircraft, infantry, armor, and artillery.



Once battle is joined, you can switch to the Micro Miniatures screen and issue tactical battle commands to your troops.

But any ground this game loses in authenticity it gains back in flexibility. For starters, you don't have to play against the computer—instead you can duke it out with a friend via modem. And you aren't limited to preset campaigns and their logical variants. D-Day lets you add military units or alter the strength, experience, and fatigue levels of existing ones to create custom scenarios.

D-Day lets you compare your losses after a battle.

The game also supplies its unit commanders with specific "personalities," varying the way each officer approaches a set of orders in a given situation. Granted, these personality differences were less of a factor in WWII than in earlier conflicts where poor field communications made individual initiative more important. Still, the various personalities add to the fun of D-Day and give you yet another factor to consider as you try to roll back the Germans or stave off the Allies.

Once battle begins you can resolve it automatically or switch to the Micro Miniatures conflict screen. The latter lets you operate at a tactical level, issuing formation and movement commands to any or all of your involved troops. There are no multiple attack/defense modes, however (such as probes or assault-without-advance options), and that severely limits your degree of control.

But game play flaws aren't the biggest problem you'll encounter in D-Day—visuals are. The graphics are dull: 16-color VGA images with an emphasis on olive green and drab gray. There's no getting around the fact that war-game graphics have moved far beyond this, as evidenced by the 256-color, Super VGA scenes in Three-Sixty Pacific's V for Victory series. This game's negligible graphics, combined with its poor combat options and limited artificial intelligence, will likely put off both veteran and wanna-be war-gamers.

Nevertheless, D-Day's extremely configurable playing conditions and modem support are strong pluses, and the Micro Miniatures battles will appeal to those who like managing the tactical as well as the strategic aspects of a campaign. (Impressions; 203-676-9002; DOS, $69.95)

PSST! ☞ The attacker has an enormous advantage in this game, so move in fast and furiously. Gang up on individual units without fear of immediate reprisals. ☞ Micro Miniatures is not a tactical option in modem play. If you want to avoid Micro Miniatures altogether, just hit Autoplay when the tactical screen comes up.

286, 640K RAM, DOS 3.0, VGA, Microsoft-compatible mouse

GAME PLAY:	℮² ℮² ℮²
GETTING STARTED:	℮² ℮²
GRAPHICS:	℮² ℮²
VALUE:	℮² ℮² ℮²

D-Day's strengths are its configurability and modem play option, but poor graphics and combat inaccuracies keep it out of the upper ranks.

DOS

PREVIEW

Wing Commander Armada

By Alfred C. Giovetti

A Confederation carrier launches an attack against the vile Kilrathi empire.

The name Wing Commander usually brings to mind an involving space opera punctuated by pulse-pounding interstellar combat. Now Origin is cracking the mold with Wing Commander Armada, a combination space combat sim and strategy game that retains a resemblance to its ancestors while sporting a personality all its own.

The premise is a simple one: You pick a side, either Confederation or Kilrathi, and then try to develop industrial and military might on as many planets as possible. Your opponent, either computer or human, starts from the opposite end of the sector and does the same thing. Whenever fighters from opposite sides meet, the result is a Wing Commander-style space dogfight that ends with the destruction of one contender's carrier.

Take the controls of a Kilrathi ship and take on the best the Confederation has to offer—a wraith piloted by another human being.

The battle play mode pits you against the computer in any of ten ships in a progressively more difficult fighter gauntlet.

A confederation pilot checks the system's status on a multifunction display before blasting him to atoms.

Once you get into a dogfight, you'll be surrounded by the controls, weapons, and components familiar from Wing Commander ships—but the graphics are better. Armada's visuals are similar to the high-resolution graphics that will be featured in the upcoming Wing Commander III.

Things get even better in multiplayer mode. Dogfights against experienced human opponents far surpass conflicts with the predictable computerized pilots of most games, which explains why you'll want to opt for modem or network play of Wing Commander Armada.

You can play Battle, Armada, and campaign games against the computer or with as many as five other players across a network. The Battle mode runs you through a gauntlet of one-on-one battles that get progressively more difficult. Armada play lets you explore a single randomly generated sector containing more than 50 planets. Each player must build ships, explore the sector, and move his carrier to develop worthwhile planets. Campaign mode provides 24 pre-mapped sectors in which you can practice your battle and simulation strategies by playing each sector repeatedly.

While in armada or campaign mode, you are allowed to build mines on the planets you develop. You can ship the resources that you mined to other planets to be used to build additional mines, factories, ships, and planetary fortresses. These factories in turn can produce ships that you'll use for military and cargo tasks, or as scouts to locate other planets for your carrier.

Wing Commander Armada is a unique game that, while weak in the strategy department (at least in our prerelease version), utilizes excellent production values, graphics, music, and flight simulator mechanics. But it's the modem and network play feature that may make Armada a product to check out. (Origin Systems; 800-245-4525; DOS, approximately $55-$65)

PSST!

☞ Build light fighters early on to explore the planets quickly and to identify locations for fortresses, mines, and ship factories. Knowing the lay of the land can help you defend critical locations that you are using for production. ☞ Upgrade fortresses quickly. When you build a fortress you also get two planetary defense fighters, and a third-level fortress will give you a pair of the most powerful ships to help defend your territory. ☞ Ships can be repaired by docking them with the carrier, so don't be afraid to retreat to a safe haven for some necessary repairs. ☞ Use human emotions against your noncomputer opponents. Try to unnerve human players by heckling them into making a mistake.

DOS

Pacific Strike

Pacific Strike is heavy on details—right down to a Bearcat's paint job.

By Alfred Giovetti

Early one Sunday morning in December, 1941, American pilots relax in their naval barracks at Pearl Harbor. Suddenly, massive explosions rock the base, and hundreds of planes fill the skies. World War II has begun for the United States, and Pacific Strike from Origin Systems has begun for you.

Pacific Strike follows the exploits of one of these pilots, aptly named Hero, through most of the major battles of the Pacific War, culminating in either the dropping of atomic bombs on Japan or the assassination of Japanese leader Tojo.

Pearl Harbor, December 7, 1941—the peace is about to end.

Following Origin tradition, Pacific Strike takes a sophisticated flight simulator and places it within a professionally scripted and beautifully animated graphic adventure. As Hero, you'll follow one of two possible plot lines. The winning track has you flying 33 missions, but if you fail at those and the Japanese gain a carrier advantage, you'll take the other track. Here you must try to turn the war back in the United States' favor by undertaking 11 additional carrier-sinking missions.

A red line on a map and some very Indiana Jones-like music traces the travel route of your ship, the Enterprise, on its course through the Pacific. The map also provides historical background for the missions, which are divided among nine campaigns. The missions include such events as Dolittle's Tokyo raid and the battles of Midway and Iwo Jima.

It's time to do some damage and protect the U.S. fleet.

On the missions you'll have the choice of flying fighters and bombers, including the Wildcat, Corsair, and Bearcat. When you're promoted to lieutenant commander you have ten planes to choose from, authority to give mission briefings, and the use of a mission planner to allocate planes, pilots, and weapons. And as the war progresses, weapons advance from bombs and guns to rockets and napalm, and additional Japanese and American planes are available to you. There is no option to fly for the Japanese, however.

For anyone just looking for some quick flying, the Instant Action option allows you to jump into the cockpit of a variety of American and Japanese planes to make attacks on land, sea, and air targets.

Flight-sim novices needn't worry: you can opt for rookie, veteran, or ace modes, each with eight difficulty settings. Rookie airmen will also appreciate the simulator's "transparent cockpit" option that lets you see more sky on your screen during a dogfight. While the option makes the game more playable, it may offend sim realism fanatics.

They won't be offended by Pacific Strike's appearance, however. A variety of views, including "target" and "chase," make the game a visual feast. Ships really sink, and animations of crashes give an accurate view of planes hitting the ship. And graphics techniques such as "shading" produce some of the prettiest art I've seen in a computer game.

In all, Pacific Strike is most enjoyable. And while it might be unrealistic to think that the actions of one pilot's squadron could change the war, the result is satisfying game play. (Origin Systems; 800-245-4525; DOS, approximately $55-$65)

GAME PLAY:	3
GETTING STARTED:	4
GRAPHICS:	4
VALUE:	3

Pacific Strike is an excellent, polished game. The lack of randomized missions and the inability to fly for the Japanese reduce its flexibility and replay value, but this graphic adventure/flight sim is still enjoyable.

☞ The object of the game is to destroy the enemy's carriers and protect your own carriers. Concentrate on killing enemy carriers fast.

PSST! Make sure you take out the bombers, Baka bombs, and torpedo planes first when defending your ship. ☞ If a U.S. "carrier" goes down, crash your plane, and select Continue from the main menu to fly the mission until you get it right. ☞ If you are in a fighter bomber with tail guns, you can turn your plane upside down, target, and kill already damaged ships with your tail guns. ☞ When you autopilot into an area containing enemy fighters and ships, immediately tell the entire squadron to break formation. The fighters will know to dogfight, while the bombers will attack enemy ships and ground targets. ☞ When in a dogfight with a Frank or Zero, dive quickly to the deck, and dogfight anyone who follows you there. On the deck the Zero can only turn in two dimensions and is more vulnerable to the higher speed and power of American planes. If no one pursues you, pull a fast Immelman and take on the incoming planes from behind.

CHEAT

When flying torpedo bombers, turn on the infinite ammo and drop a bunch of torpedos; then turn off the infinite ammo before the torpedos hit the ships. Origin testers call this the infinite promotion cheat. When used at Midway, one torpedo bomber can be used to take out all the enemy ships for full points.

486, 4MB RAM, DOS 5.0, VGA

You're not the first human to battle the ancient alien legacy.

But if you lose, you'll be the last.

Explore space, build colonies, invent technologies and battle aliens to save humanity.

Construct planetside and orbital colonies to generate needed resources.

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DOS

CyberStrike

By Christopher Lindquist

War ravages a CyberCity.

The future is now. CyberStrike lives.

If you aren't a GEnie subscriber, you probably haven't heard about CyberStrike, the multiplayer battle game by Simutronics. Let me tell you, you don't know what you're missing.

It's kill or be killed in this game. Your bipedal CyberPod rumbles through the streets of a CyberCity while you attempt to build the power relay towers that keep you moving. Along the way, you blast opposing teams' towers and 'Pods in a battle for control of electronic turf. The concept is simple. The execution is elegant. The game is a treat!

Death comes from all angles in CyberStrike.

Controlling the CyberPods is easy with either a joystick or the keyboard. In addition to moving around the CyberCity, you can look up and down to locate and fire at enemies above or below you. Information about your team, the CyberCity, and your 'Pod is only a keystroke away. And you can send messages at any time to set strategies with your teammates or taunt your opponents.

Just staying alive in CyberStrike earns you points. The points can be further increased by a "multiplier," which goes up at preset times for as long as you avoid death. The multiplier does more than affect your score, however. You can also trade in multiplier points for power relay towers and "expansion modules" that enhance your 'Pod's firepower. The modules add such features as longer shots, higher jumps, and mines to your onboard arsenal. Staying alive also earns you the right to purchase increasingly powerful modules.

You also get points for destroying enemy 'Pods. To make things more interesting, 'Pods carry a bounty that goes up the longer they have been on the playfield without dying. So the longer you stick around, the more tempting a target you become. And even the most powerful 'Pod can soon find itself in trouble if a team decides to gang up on it.

Like most online games, CyberStrike isn't perfect. The graphics are a bit blocky and enemy CyberPods sometimes disappear for a moment and reappear in another location. That can make targeting difficult. Worst of all, unless you already have a GEnie account, you'll have to sign up. And even if you find yourself online only four hours per month, you'll still spend more than $100 per year to play.

Despite these minor problems CyberStrike is a prime example of where online games are headed. It combines great action with plenty of interaction—with both the game and other players—to create a thoroughly enjoyable virtual place to spend some time. (GEnie/Simutronics; 800-638-9636; DOS, $8.95 per month for 4 hours and $3 per hour after that)

GAME PLAY:	★★★★
GETTING STARTED:	★★★
GRAPHICS:	★★★
VALUE:	★★

CyberStrike combines computerized action with human interaction to create a game that's both intense and exciting. The biggest problem you'll have with CyberStrike is exploding GEnie bills.

PSST!

☞ Don't get too far from the nearest relay tower or you'll be a sitting duck. Reserve power modules can give you the juice you need to get back in range. ☞ Learning the shortcut keys, such as F1 for Shield and F2 for Reserve Power, will make life easier in the heat of battle. ☞ Fight the urge to jump when you're under heavy fire. You may avoid a few shots while you're in the air, but you'll be defenseless for several seconds after you land. ☞ If it's hard to see in the dark, use an infra-red module or just turn up the brightness on your monitor. ☞ Try to cache some useful modules, such as shields, before you get into heavy fighting. If things turn against you, run to your cache for a quick pick-me-up. ☞ Teamwork pays off. Bounties are awarded to all players who hit the chosen target within 20 seconds of his death. So several weaker players can collect the points from a much stronger 'Pod.

386SX/20, 2MB RAM, VGA, 2,400-bps modem

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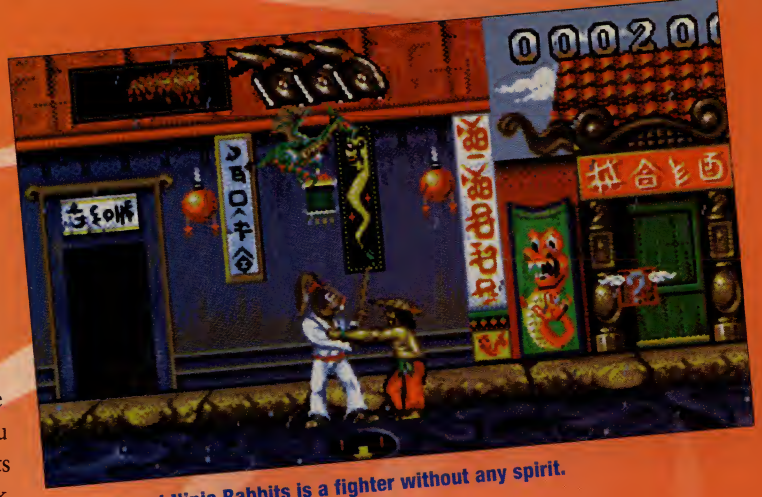
DOS

Arcade Action Kit

By John Sauer



International Ninja Rabbits is a fighter without any spirit.

Villa Crespo's Arcade Action Kit proves that you shouldn't judge a book by its cover or a game by its box. The company started out with a good concept—value-priced games usable on lower-end PCs—but fumbled the ball in marketing and presentation.

Demon Blue can sometimes climb to the top on the heads of his enemies.

The Kit comes in a big, colorful, lunch-box-style package that contains one disk; a few warranty, information, and disk trade-in cards; and a fairly tepid PC game magazine. That's it. Dump out the meager contents, hold the box to your ear, and you can hear the ocean. It seems the only reason for the big box is to fit the magazine. I expected more.

Timing is everything in the multilevel Canyon Capers.

The Kit's five games are U.K. developed, carry 1992 copyrights—older stuff—and are the quality of middle-of-the-road shareware. These DOS-based games, which won't run under Windows, are easy to play, and no manuals are needed (or included), although there is an option that lets you print out game instructions. The games' graphics are reasonably sharp and very colorful. They support Sound Blaster and Adlib sound, but they all run best using the standard PC speaker.

Keep the veggies out of harm's way in Space Vegetables.

You won't find anything special here. Turn 'n Burn is a one- or two-player Asteroids clone with bigger, simpler graphics. It's the most difficult title in the Kit, and it's also the one my kids played the most. Go figure. Space Vegetables is a shooter—sort of—with a lunar garden theme, and International Ninja Rabbits is a disappointing fighting game. Canyon Capers and Demon Blue round out the Kit with similar multilevel arcade action.

Of the five games, Space Vegetables, Demon Blue, and Canyon Capers have the most action going for them. Veggies lets you play as a space gardener warding off alien critters from bubble-encased plants while trying to harvest their fruit. You have a laser, you can fly, and you look like Neil Armstrong doing the moon walk. It's not bad. Demon Blue and Canyon Capers put you in charge of small, cutesy characters who must collect gems and find the exit at each level. Needless to say, these games are not fit for those who usually have to strap themselves in before launching their 486 screamers.

Even with five games, the Arcade Action Kit isn't much of a value at the asking price of $49.95. That kind of money puts it in competition with titles like Doom—games that offer much better play for the price. The Kit would be more attractive at about $20, and a Villa Crespo rep told me it's likely to sell for around that. If so, it might be worthwhile as an inexpensive purchase for the kids or something to take to work for downtime play. (Villa Crespo Software; 800-521-3963; DOS, $49.95)

The Sound Blaster and AdLib emulations didn't work well with clone sound cards. Stick with the PC speaker.

286, 512 RAM, DOS 3.1, EGA/VGA

GAME PLAY:	2 2
GETTING STARTED:	2 2 2
GRAPHICS:	2 2 2
VALUE:	2

The Arcade Action Kit is middle-of-the-road software—no great surprises or disappointments. But factor in the misleading packaging and the high retail price, and the value drops.

Jurassic Park Interactive

By Peter Olafson

3DO

The main screen in Jurassic Park Interactive. Does that look like Nedry to you?

Will the real dinosaur please stand up? Is it one of the T-rexes, spitters, or velociraptors that populate Jurassic Park Interactive, or is it the game itself—a collection of uninspired minigames that neither push the powerful 3DO platform nor live up to player expectations?

I'll vote for the game—it's a genuine disaster. Last summer's Steven Spielberg dinosaur spectacle ran on technical wizardry rather than heart, but this 3DO incarnation has neither.

Your tasks in Jurassic Park are to conduct visitors and staffers safely to the island's heliport and penetrate a five-level security system to call back a departed freighter carrying dinosaur stowaways—all within a tight time limit.

Welcome to Jurassic Park. Abandon hope all ye who play here.

You must guide several characters on a journey to the heliport that consists of three legs, each made up of disparate arcade segments: a driving game in which you're pursued down a dusky, curving road by a tyrannosaurus rex; a sideways-scrolling bit where you zap spitters with a taser and dodge the incoming poisoned goop; and a 3-D maze in which you search for the exit and try to trap raptors.

The driving bit is primitive, with no depth to the view, no feel for the road and, at the end, an inauthentic "Yee-hah!" as the jeep drives off into the distance with no indication of why the monster suddenly gave up the chase. The spitter sequence, while technically impressive, is basically a shooting gallery. And the 3-D portion is just a find-the-keys game, where you don't get to shoot the raptors.

Dying isn't any fun either. If you fail in the raptor or spitter segments, the game simply tosses up an animated critter against a black backdrop. It's not even scary, and a dinosaur game should at least be that.

Breaking into the security system is even more tiresome. You have to do well in five arcade games which, while occasionally clever graphically, can only be described as pitiful in terms of game play.

Frankly, Jurassic Park Interactive doesn't do much right at all. Original *Jurassic Park* movie footage is limited to the opening shot of the helicopter approaching the island. None of the real cast members appear, but it doesn't matter much because the purposeless video sequences that preface each segment only show the characters running away at a distance. When the actors appear in close-up stills, though, they don't come close to resembling their big-screen counterparts.

There is one splendid moment. In the end credits, members of the production team morph into dinosaurs. But by then the game's already over, and all you're left with is a sense of wasted time. (Universal Interactive Studios; 800-777-0546; 3DO, $55 to $59 street price)

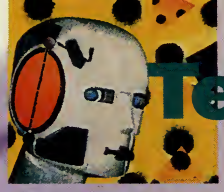
GAME PLAY:	1
GETTING STARTED:	4
GRAPHICS:	3
VALUE:	1

Jurassic Park is the worst sort of slapped-together product based on a movie license.

PSST!

☞ In the spitter segment of the game, stay on the move. It'll make you tougher to hit. ☞ When driving the jeep, keep the pedal to metal and try to stay in the middle of the road on turns. That will allow you to get around the obstacles more easily. ☞ In the 3-D segments, especially at the "normal" difficulty level, you don't necessarily have to trap the raptors. You can simply out-manuever them. But you'll need to be fast and precise in your movements. ☞ Don't move too quickly in the shoot-'em-up sequences needed to break the security codes. The clock isn't running, so manuever slowly and in baby steps.

3DO Multiplayer



TechShop

By Christopher Lindquist

Speakers of the House

So, you've got everything you need to turn your ho-hum PC into a real entertainment system: a solid double-speed CD-ROM drive, a cool 16-bit sound card, a pile of hot CD-ROM games—and a pair of tiny speakers so cheesy that the mice have been trying to run off with them. The ear-popping roar you were looking forward to turned out to be a tinny warble.

Fortunately, a new generation of multimedia speakers can replace those cheap sound graters without busting your budget. We tested five pairs of magnetically shielded, self-powered speakers you can buy from just under $100 to around $175 a pair. Any of these systems will sound a lot better than those $5 squawk boxes built into most multimedia PCs and upgrade kits. And all of these speakers can be hooked up to PCs, Macs—even a portable CD player.

But keep in mind that while new speakers will be a sound improvement, they're not miracle workers. In this price range you'll still have to deal with limited bass response. Comparatively small speakers with weak magnets simply can't move much air, no matter what the vendors claim on their boxes. (Some speakers let you add a subwoofer later on to dramatically improve the bass response.) And you'll still have to deal with sonic problems from the less-than-hi-fi amplifiers integrated into most of these models. But hey, if you want better sound, you can always spend more cash.

To make sure you like what you hear, be sure to listen before you buy—only you'll know what's right for you. Don't be fooled by specs such as power output and frequency response, either. Your ears don't care about numbers—they care about sound. (For more details on what you should know before buying speakers, see "Now Hear This," June 1994, page 110.)

Altec's ACS100.1 packs good sound in a compact case.

PHOTOGRAPHY BY WEINBERG & CLARK

Altec Lansing ACS100.1

Altec Lansing was one of the first well-known speaker manufacturers to introduce high-end computer speakers. Its ACS300 model, with a portable clamshell design, bass-enhancing subwoofer, and high-quality sound, still sets the standard for multimedia speakers. The ACS100.1 speaker system continues the Altec tradition at a lower price.

The ACS100.1 shares the rugged clamshell design of its predecessor, but in a smaller, more streamlined package. Unfolding a speaker separates woofer from tweeter, making the boxes ready to use. Controls for volume, bass, and treble sit conveniently on the front lip of one speaker, while two inputs, a headphone jack, an on/off switch, and a jack for the optional ACS150 subwoofer ($129) are located on the back. The Altecs come with an AC adapter to power the internal 12-watt-per-channel amplifier.

While the ACS100.1 doesn't quite measure up to the ACS300, the sound is still quite impres-

Audiophile uses real wood to achieve natural but bass-light tones.

sive. Bass is modest but tight, and treble response is sharp, though perhaps a bit bright. These little guys are worth a careful listen. (Altec Lansing; 800-258-3285; $129)

Audiophile ProSound Reference 10A

Upstart Audiophile has introduced something decidedly low-tech to the high-tech world of multimedia: wooden speaker cabinets.

The ProSound Reference 10A speakers use solid wooden cabinets to house a 3-inch woofer and a half-inch tweeter. Why should you care about wood? Despite advances in plastics, high-end speaker manufacturers still swear by wood to create natural-sounding speakers.

The cabinets are finished in white, so it isn't until you pick up the 7-inch-high boxes and discover how heavy they are that you realize these aren't ordinary computer speakers. The speakers hook up to an external 10-watt-per-channel amplifier that connects to your sound card. The separate amplifier helps reduce noise by keeping it away from the speakers themselves.

The boxes deliver a transparent sound, but they aren't going to beat you up with bass. You can help alleviate that by adding Audiophile's SW300 subwoofer ($169.95).

About the only drawback to these speakers is their price, which is listed at close to $230. The company claims the speakers sell for about $179 on the street, but even that's high for the bunch we reviewed. Still, if you can stretch your budget a bit, consider the ProSound 10As. (Audiophile; 800-727-6863; $229.95)

International Jensen JPS 45

International Jensen, the parent company of speaker makers Acoustic Research, Advent, and NHT, is also a name well known to car stereo listeners. Now the company wants to utilize its expertise in small speakers in the multimedia market—and the JPS 45s are an excellent first step in that direction.

The JPS 45s stuff 3¼-inch woofers, 2-inch tweeters, and a 10-watt-per-channel amplifier into heavyweight plastic cabinets. Volume, bass, treble, and balance controls are on the side of the left speaker, which has a headphone jack and a single input connector on its back. Jensen thoughtfully labels the cables to avoid confusion during setup.

The sound from these speakers won't cause any confusion either. While the JPS 45s probably won't beg for a place in your home stereo system, you won't object to playing your audio CDs through them. Bass output is surprisingly strong for so small a box, though it turns a bit muddy when you crank up the volume. The treble isn't abrasive or tinny, either, as is the case with some of its competitors. Your ears simply don't get tired of listening to the Jensens.

At less than $150 a pair, the JPS 45s definitely belong on your listening list. (International Jensen; 800-323-0707; $149)

Labtec CS-900

You've no doubt seen the Labtec name before—it's probably on those tinny-sounding speakers you're trying to replace. But Labtec also makes higher-end speakers that could change your mind about the company's products.

The Labtec CS-900s look like pumped-up versions of their smaller, cheaper siblings. They stand nearly 9 inches high and contain a 4-inch woofer and a 1⅛-inch tweeter. All power, volume, and tone adjustments reside on one speaker, so you don't have to adjust separate controls for each channel, as some other Labtec models make you do. Dual inputs let you simultaneously attach the speakers to your computer and another sound source, such as a portable CD player. A headphone jack lets you bypass the speakers for private listening. The CS-900s' integrated amplifier has a rated output of seven

The JPS 45s, from Jensen, are solid multimedia contenders.

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watts per channel, and they come with an AC adapter—unlike many Labtec speakers.

Sadly, when it comes to sound, the CS-900s are merely adequate. That's partly because they share some of the same characteristics as Labtec's lower-end models, such as lightweight speaker magnets and flimsy plastic cabinets.

Labtec proves it can get serious with the CS-900s.

A pair of CS-900s can still be a good deal, though. The list price of almost $130 may sound steep, but you should be able to find a pair for under $100. For that price, these Labtecs are worth a test run by budget-minded digital rockers. (Labtec; 206-896-2000; $129.95)

Sound takes a back seat to convenience in the CSS-B100.

Sony CSS-B100

If you're looking for the absolute best audio for your multimedia system, don't look at Sony's CSS-B100. But if you seek convenience and efficiency, this combination speaker, monitor stand, and audio/video control center could be the answer.

You can place the one-piece CSS-B100 on top of your computer as a stand for a monitor as large as 17 inches or just set it directly on the desk. Front-mounted volume, bass, and power controls are easy to reach. A small door on the front of the unit hides additional audio and video jacks for attaching a TV set, a microphone, headphones, and a second audio input.

While the Sony box rates high in convenience, it falls flat in terms of sound. Despite the best efforts of the bass control, the unit's low end is puny. Stereo separation is also limited by the small space between the left and right speakers. The overall effect is underwhelming audio, not smooth and natural sound like you'd get from some of its competitors.

But if space is tight, and you're willing to sacrifice some sound quality for one handy package, you'll find that the CSS-B100 makes it easy to listen to multimedia on the desktop. (Sony; 800-952-7669; $129.95)

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By Christine Grech

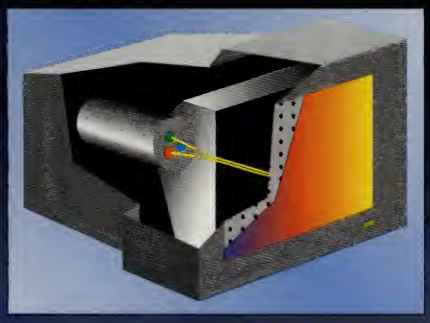
A Closer Look at Monitors

The aging 14-inch screen that came with your computer might be adequate for spreadsheets and word processors, but if you want more excitement from your computer, you need to look at something a bit more up-to-date.

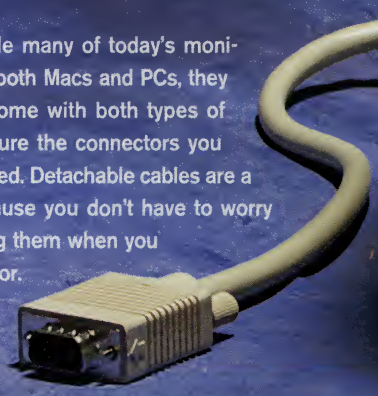
To get the most from your multimedia titles and games, you need to see them clearly, with adequate resolution, and at a size that's big enough to make an impact. New monitors ranging from 15 to 21 inches deliver the visceral thrill you need for action games and complex multimedia titles.

No matter what size screen you want, you'll need to know a few basics. So here goes:

Behind the Scenes: The picture you see on your monitor is created by three electron beams (one red, one green, one blue) projected onto the screen. Fired from a gun (or guns) inside the monitor, the beams pass through small holes or slots in a metal plate called a shadow mask. Smaller holes placed closer together (which translates into a smaller "dot pitch") create sharper images. The beams hit the monitor screen, which is coated with combinations of tiny red, green, and blue phosphors. These phosphors light up to create the colors you see onscreen.



Cables: While many of today's monitors work with both Macs and PCs, they don't usually come with both types of cables. Make sure the connectors you need are included. Detachable cables are a nice extra because you don't have to worry about damaging them when you move the monitor.



Controls: Most monitors have controls for adjusting contrast, brightness, and vertical and horizontal positioning, but larger and higher-quality models may add controls for pincushioning (which gives the display area an hourglass shape), convergence (aligning the monitor's color beams to keep colors pure and crisp), and degaussing (which removes residual magnetism that could cause distortion).

The monitor should let you store settings for different resolutions or at least have preprogrammed options.

Dot Pitch: A monitor's display is made up of phosphorescent pixels, and the space between the pixels is call "dot pitch." The bigger the number, the fewer the pixels, and the fuzzier the picture. For the best picture, look for a dot pitch no greater than .28 or .29.

Multiscanning: Sometimes called autosynching, this means that the monitor can adjust to various video signals. A multiscanning monitor automatically works with a variety of video boards at several different resolutions.

Tilt-and-Swivel Base: This kind of base makes it easy to adjust the monitor's position—up, down, left, and right. A tilt-and-swivel base should come standard, but check to make sure.

Vertical Refresh Rate: This number tells you how many times per second the screen is redrawn. Fast refresh rates result in a steadier image that's less prone to flicker. Your video card's refresh rate must match that of your display, so most monitors support a range of rates. Insist on a refresh rate of at least 72Hz.

Just as important, make sure that the monitor supports the resolutions and refresh rates in non-interlaced mode. Interlaced monitors refresh only every other line during each screen update, and they can flicker even at high refresh rates.

Picture Tube: A Trinitron is a type of monitor tube that was pioneered by Sony and produces sharp images with good color and clarity.

Flat-square monitor tubes produce picture quality as good or better than a Trinitron. Flat-square tubes produce less glare because they're flat (not rounded) on all sides. Trinitrons are flat on only two sides.

MPR II: This is the Swedish standard for electromagnetic emissions from monitors. It's not clear whether monitors are a health hazard, but better safe than sorry. So look for a monitor that's MPR II compliant. If you're really worried, look for compliance with TCO (an even stricter European emissions standard).

Display Area: This is the diagonal measurement of the screen size you'll actually see on the monitor, not the physical dimension of the monitor's tube, which is what most vendors advertise. The display area typically runs about an inch smaller than the tube size—but it can vary by as much as a half-inch from monitor to monitor. Compare the image size on same-size monitors to make sure you're getting the largest display area possible.

Energy Star: The Environmental Protection Agency set this standard for power conservation. It requires a monitor to power down to consume less than 30 watts when idle. Another energy-saving standard to look for is DPMS (Display Power Management Signaling).

Glare Screen or Glare Coating: Some monitors have a glare-reducing coating on the glass. Other monitors use an add-on glare screen that does the same thing. Add-on glare screens are also available for just a few dollars.

Resolution: This is the sharpness of the image. Display resolution is measured by the number of pixels that make up the screen image. The more pixels, the sharper the picture. All new monitors support VGA (640-by-480 resolution) and most support Super VGA with resolutions of 800 by 600, 1,024 by 768, or even 1,280 by 1,024.

Monitors also support different combinations of colors and refresh rates at each resolution. Your video card must support exactly the same combination of resolution, colors, and refresh rates for the system to work.

Warranty: As with all computer equipment, make sure your monitor carries at least a one-year warranty. With monitors, though, sometimes the manufacturer will cover the monitor tube for a certain length of time and other parts and services for a different period.

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Protect your computer from viruses, pick the best multimedia system, and get the dirt on DSPs.

Computer Cooties!

Are computer bulletin boards crawling with viruses like some people say? I use a virus-detection program, but I'm still worried about catching something.
Anonymous

Despite what some alarmists would have you believe, the computer bulletin board is not the Typhoid Mary of the electronic world. Most BBS operators value their customers, and the quickest way to lose subscribers is to start passing along every software virus that hits the board. To prevent this, they usually run virus-protection software on all files that can be downloaded from their board. Plus the software that actually runs the BBS may have additional virus protection built into it, automatically scanning every file that's uploaded to the system. The BBS operator then deletes infected files before anybody has a chance to download them and spread the virus further.

That doesn't mean you shouldn't be careful. Computer viruses are a fact of life, and you're bound to come into contact with one sooner or later if you keep using new software. The best way to safeguard your system is to get a good virus-protection program (such as those from Central Point Software or Symantec) and then keep it updated. New and mutated viruses appear every day, so virus-protection companies are constantly improving their software and releasing updates to detect the latest, greatest nasty.

Once you have the virus-protection software installed, use it. That means checking every file you download from a BBS before you run it for the first time. It may be tedious, but if you're really worried about practicing safe computing, it's the only way to ensure that you and your computer are protected.

Multimedia Piece By Piece

I desperately want to hop on the multimedia bandwagon, but I don't know where to start. Right now I am running a 486SX/25 with an 8-bit sound card. Should I look for a multimedia upgrade kit with a CD-ROM drive and a 16-bit sound card packaged together, or will I get a better deal if I buy the components separately?
Paul Higginbotham
Charleston, West Virginia

Buy the all-in-one kit—unless you want to make installing multimedia components a lifelong hobby. Installing prepackaged multimedia kits may not be as easy as falling off a log, but at least the kit vendors try to supply you with components that will work together with a minimum of fuss. Buying each component on your own is asking for compatibility problems unless you really know what you're doing. A preconfigured kit will save you not only hassles but money too, since upgrade kits tend to be a better bargain than components purchased separately. Keep a couple of things in mind when you shop for a multimedia upgrade kit:

Make sure the kit you buy contains at least a double-speed CD-ROM drive and a Sound Blaster-compatible 16-bit sound card. Some kits come bundled with other extras, such as speakers, joysticks, multimedia titles, and games, but you may just be paying more for some things you'll never use. Try to find a kit that has only the hardware and software you want.

To get started, check out the review of multimedia upgrade kits in the July issue of *E2* ("Do-It-Yourself Multimedia," page 108) for some good kits and more tips on what to look for.

Pentium, Please

I have a 386/40 PC that's all decked out for multimedia, but the processor is beginning to slow me down. For example, it will run Doom, but I have to shrink the view window considerably to run it at a playable speed. I want to upgrade to a new machine (and keep all my multimedia components), but I don't know whether to go for a 486 or skip right to a Pentium. What would you suggest?
Carol Steinman
Amherst, Massachusetts

Unless you can find a real bargain (free, for instance) on a high-end 486 system, go with a Pentium. Intel wants to stamp out the 486 for all eternity (and take some 486-cloning competitors with it), so you can buy a 60MHz Pentium-based PC for only a couple hundred more dollars than a similarly configured 486. You'll see a huge performance increase over your 386, and you'll be ready for any games and multimedia titles that come out optimized for running on a Pentium-based system.

High-end 486s, especially the new clock-tripled DX4 versions, still pack plenty of punch, but if you're looking to avoid another upgrade anytime soon, the Pentium is the better choice. For more Pentium info, check out "Your Next Game Platform" on page 43.

ILLUSTRATION BY DAVID POVILAITIS

DSP Does It All?

I've seen several "Digital Signal Processor" sound/modem/fax cards recently, and I'm considering buying one to free up some slots in my PC. Do they really do everything the manufacturers claim they do on the box?

Robert Simon
Latrobe, Pennsylvania

Yep, I bet they will do everything the box claims. But be sure to read that box carefully. Many DSP-based boards can do everything but wash your cat, but they can often only do one thing at a time. That means if you want the card to behave like a modem, it can't be a sound card until you're done—and vice versa. This is a big problem for anyone who wants to play online games that support your PC's sound card.

Several companies, IBM for one, are promising more powerful DSP-based boards that will have sufficient horsepower and sophisticated enough software to "multitask," or do more than one thing at a time. It remains to be seen just how good these cards will be, but IBM seems committed to making its mark in DSP.

Hopefully, future DSP cards will be easier to use, too. With today's cards, you often have to run confusing batch files and configuration programs to get them to work properly. You shouldn't have to be a computer expert just to get your favorite games and multimedia titles to work.

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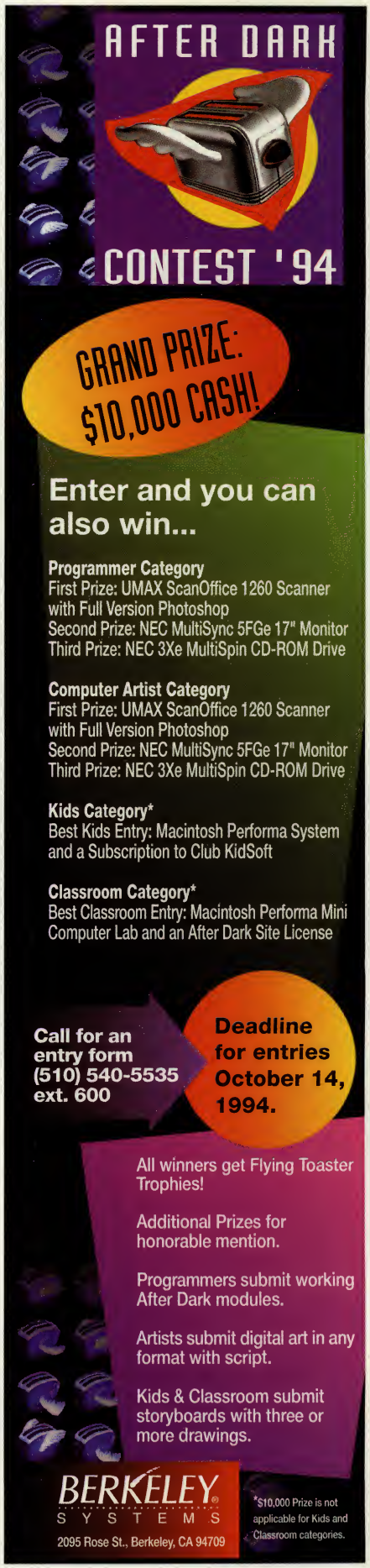

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TECHNOLOGY UPDATE

How to get surround sound without buying the theater...

Chase Technologies brings you an amazing new surround sound decoder that turns your stereo into a multi-channel home theater.

By Charles Anton

As much as I love renting videos, it's just not the same as seeing a movie in a theater. I remember the first time I saw *Jurrasic Park*. I nearly jumped out of my seat when the dinosaurs roared. One of the reasons movies seem so real is because surround sound makes it seem like you're actually there when events are happening. Now there's an incredible new device that lets you use a stereo receiver to get that same surround sound in your home.

It takes more than four speakers to get surround sound; there needs to be a way of separating the signals. The new Chase Technologies HTS-1 decoder does just that, and in a revolutionary way that rivals the best Dolby Pro-Logic and THX systems.

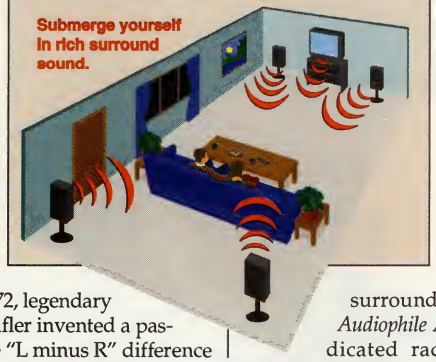
Wins over critics. Gary Reber, editor and publisher of the most authoritative magazine on home theater systems, *Widescreen Review*, stated, "...passive matrix decoders such as the new Chase HTS-1 work great as Dolby Surround™ extractors, and sound exceptionally natural when used for soundtracks and music."

Passive circuit. In 1972, legendary audio pioneer David Hafler invented a passive circuit to extract the "L minus R" difference signals in stereo soundtracks. Because the circuit was patented, it was only available on expensive Hafler products. Now that the patent has expired, Chase can make this amazing decoding system available at a fraction of the cost of other systems!

The secret of surround sound

Surround sound has become the rage of the 90's because it adds depth and realism to stereo sound, giving you the home theater experience. It makes you feel like you're actually at a concert or theater. To "fill a room" with surround sound, you need more than two channels. The HTS-1 provides four channels of sound from any two-channel stereo source.

Free center channel. By connecting your VCR or laserdisc player to your TV, you get sound from your TV speaker; this acts as the fifth or "center channel." Adjusting your TV's volume gives you as much or as little "center channel" localization as you desire, without extra speakers or amps. There are also no extra costs with the "fifth" channel. When used with the HTS-1, you'll have a true state-of-the-art five-channel system.



Submerge yourself in rich surround sound.

Breakthrough. The HTS-1 is able to decode the Dolby Surround™ signal in a videotape or laserdisc because the spatial and depth cues have been matrixed into the "L minus R" portion of the two-channel stereo soundtrack. By decoding passively, the HTS-1 avoids costly and noisy signal processing. Plus you don't need any additional amps! Just connect the HTS-1 to your existing stereo system, add two speakers for the rear, and you'll experience the magic of home theater at a fraction of the cost.

Concert sound. The HTS-1 also decodes the ambience found in all music recordings. This sense of space, or "concert hall acoustics," is present in all CDs and cassettes, especially live recordings. John Sunier, the leading authority on surround sound and producer of *Audiophile Audition*, a nationally syndicated radio program for audio enthusiasts, says, "...the new Chase HTS-1, when used to decode the hidden ambience in all musical recordings, definitely outperforms all the Dolby and THX processors (which could cost you up to $3,000)... I am impressed!"

Easy installation. Hooking up the HTS-1 is easy. Simply connect the speaker outputs of your receiver or amp to the HTS-1, then connect speaker wire to the front and rear speakers. The rear channel speakers don't have to be big. In fact, we recommend the Chase ELF-1 in either black or white finish to match your decor. They can be mounted with enclosed color-matched mounting brackets or can be flush mounted on the wall. They are also water and weatherproof; they can be used indoors or out.

The ELF-1 rear channel speakers integrate perfectly with the HTS-1.

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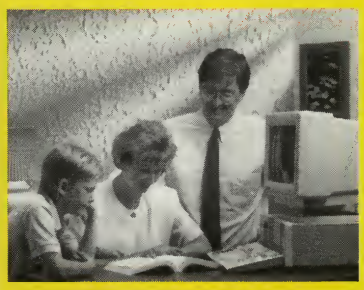

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Nolan K. Bushnell

Of Muds and Moos

Do you remember your first role-playing game? I do. It was back in the 1970s, and the game was called Colossal Cave. Developed by Willy Crowther and Don Woods for the Arpa-Net, the game consisted of a virtual cave where you typed in various commands to go spelunking. I even remember a certain frightened canary in the cave, and at the time I was entranced.

Role-playing games, as you probably know, are typically text-based environments in which you move around by typing instructions—"open door," "go north," "pick up knife," and so on. The game presents quests and other challenges for you to solve, often involving magic and fighting.

Playing against the computer can be entertaining, but the real fun starts when people play the games together—generally over an online network. The first game like this that I remember was Habitat, a program for the FM Town (a subset was Club Caribe for the Commodore 64) that came out of Lucas Films.

Habitat was innovative because it let people use their computers to phone into a network and communicate with each other. When two or more people entered the same room, they could type messages to each other—to try to convince the other to join their quest, to tell jokes, or to do whatever people do at strange cocktail parties.

These people were definitely onto something. Today, if you check out the Internet, you'll see Habitat's descendants all over the place—specifically, I'm talking about MUDs and MOOs.

What's the difference between a MOO and a MUD? Well, the obvious one is that it's between what cows say and what pigs wallow in, but there's more to it than that: A MUD (or Multi-User Dungeon) is an online environment and a virtual world that players can dial into. In a MUD, you take on the role of a character and move around a world created by the dungeon master and the computer program that runs the MUD. (For more on this type of game, see "Playing in the MUD," July 1994, page 56.)

A MOO is a different animal entirely. In a MOO (short for MUD, object oriented) you don't just experience someone else's world. Instead, using a sort of pseudo programming language, you can actually change the virtual world around you to help create a constantly evolving environment. Take, for example, one of my favorite MOOs, called LambdaMOO. Created as part of a research project out of Xerox Parc, it turns MUD players into virtual architects. (You can reach the game via the Internet at Lambda.xerox.com.888.)

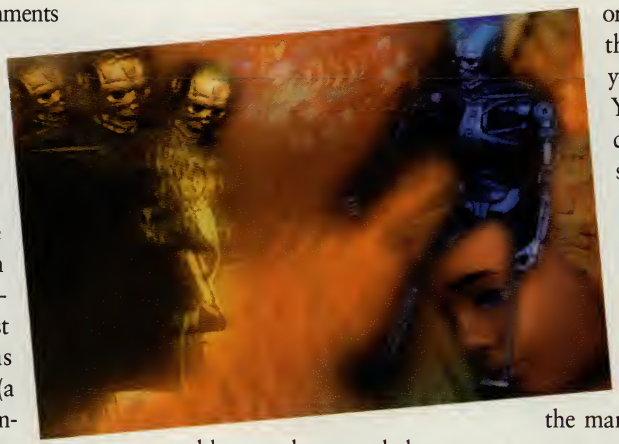


ILLUSTRATION BY LANCE JACKSON

When you allow creative people to work together on a project, magical things can happen. And some magical things are definitely happening on LambdaMOO. One of my favorite things to do is to create a trapdoor—at the bottom of a hot tub, behind a painting in the wall, or almost anywhere.

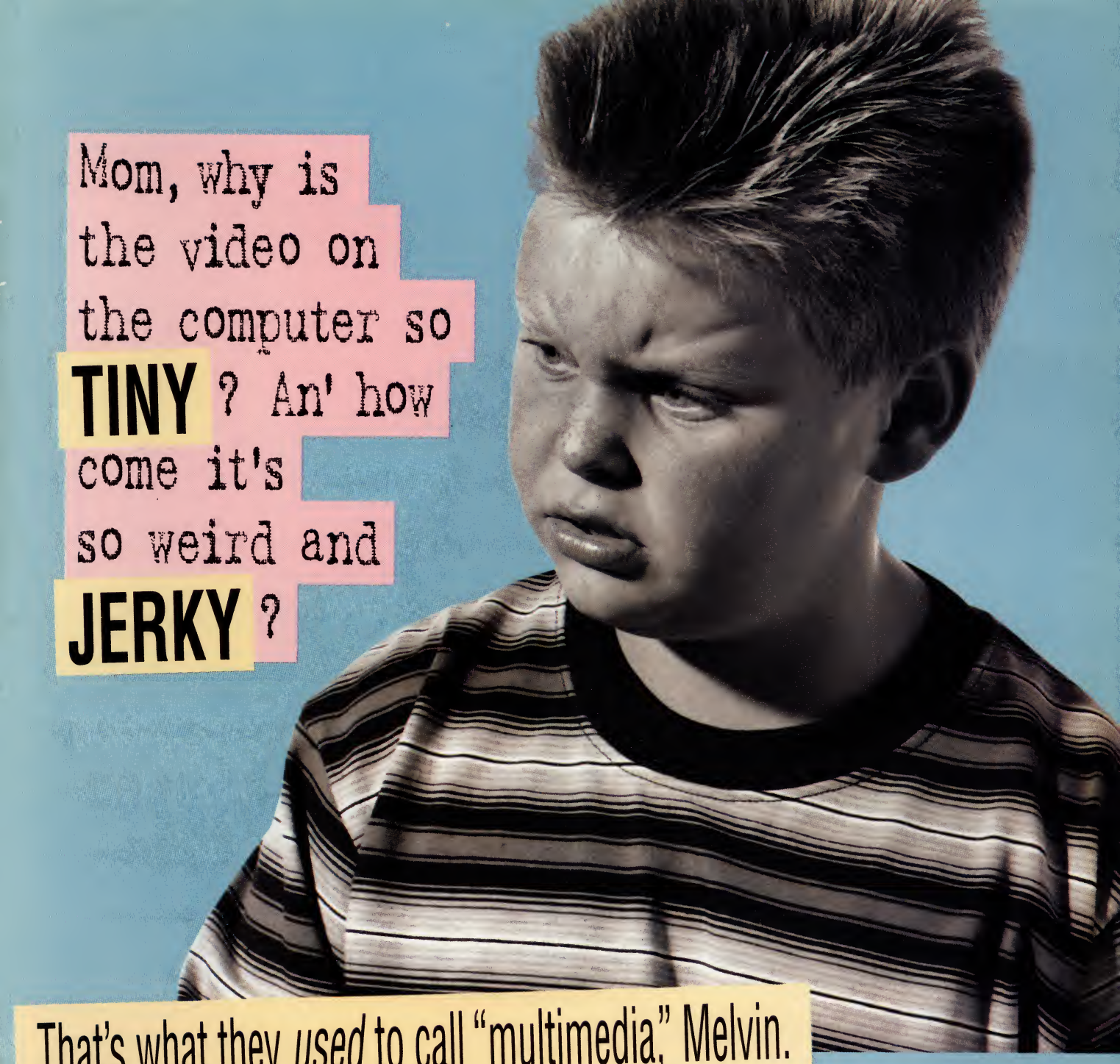
Then, behind the trapdoor, I create a whole new room for other players to explore—complete with its own set of characters, personalities, physical objects, and rules. Since all the players on LambdaMOO can add their own entrances and rooms in the same way, the MOO has become a truly intriguing place—huge, rich, humorous, complicated, foolish, whimsical, and just plain neat.

Even if you don't fancy yourself a builder of worlds, it's fun to decide what kind of a character you are and how other people will perceive you. Do you just give them your name? Do you have flowing robes or curly, fire-engine red hair? Are you short or tall, fat or thin? At the very least, you can use the commands in a MOO to dress yourself—or even undress yourself. You can also choose varying stages of dress and undress, which leads to some interesting issues about netsex—but that's a whole 'nother story.

At any rate, I highly recommend that you climb on a MOO sometime and explore these wild and wacky worlds. If you don't have access to the Internet via your company or school, you can subscribe to one of the many online services that offer Telnet access to the Internet. Once connected, you'll find worlds of science fiction, fantasy, medieval gallantry, whatever.

And even though they're all text and no pictures, these worlds seem unbelievably real once you're in them. Because you play an active role, they're much more real, I think, than the world of a novel. But, hey, wouldn't it be cool if Robert Ludlum or Stephen King authored a MUD or a MOO? I know I'd dial in.

Nolan K. Bushnell invented Pong, founded Atari, and created Chuck E. Cheese. He is currently chairman of Octus, the maker of PTA software, in San Diego, California.



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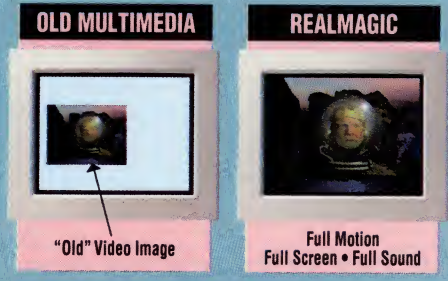

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